Introductory Lecture
ON
HIGHER MEDICAL EDUCATION.

Delivered at St. George's Hospital at the opening of the Medical Session, 1889–90.

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GENTLEMEN,—The delivery of an address on the anniversary of a school of medicine is an old custom, and one honoured by distinguished men, yet neither age nor distinction has protected it from some adversity of modern criticism. With this royal water the spirit of our time assays all things, great and small, lowly and exalted, and by this test accepts, changes, or rejects them. I believe, however, that a true economy will approve these addresses and use them still. A bare contract may answer the wit, but will not fill the hearts of men, nor kindle the fire of young disciples. To hundreds of young men to-day is a great day, not only because on this day they enter upon a new calling, but even more also because to-day is to them the first day of freedom. How vividly I remember—nay, how keenly I still feel—the emotion of that day in my own life—the day when I first entered my own sitting-room, sat beside my own table, and took my life into my own hands! I took up my life, as now you take up each of you your own, with a joy beyond words and laughter—that joy in the possession of my own faculties, for better or for worse, which is the birthright of certain races of men. We know not then the burden of life, so easily we carry it—so easily that for the first few years we are apt to knock it about a good deal and even to make some lasting dints and scars upon it, not always in very honourable conflict. Still, with all that, the freedom of the city within ourselves is a priceless boon, and one which no brave man would give away, whatever the burdens and hardships that freedom brings with it. Indeed, to take our freedom in both our hands, and to step forth into vacancy therewith, would be a cruel irony; we should be as one that beateth the air. There are adventures before us, work to break our strength upon, olive and wild parsley to win, great captains to follow, and a mistress to worship. Your mistress, gentlemen, is the Art of Medicine, and your freedom is her service. *Studia libertate proveniunt.* You will not begin work with gestures and vociferations, but, as English boys begin a great cricket match, with a seriousness, even a solemnity, of bearing consistent with the deepest intensity of purpose and the hope of standing side by side with the best of us. All men conscious of strength are calm enough to wait till they know where to use it, and will bide their time. The best soldier best loves discipline, and looks most loyally to his commander. He knows his powers are too good to waste, and the stronger he is the deeper his devotion. Those of us who are growing old, whose fires burn lower, whose limbs are laggard, involve ourselves in our wisdom and try to avert our envious eyes from your precious gift of youth. I try sometimes to comfort myself in my age by remembrance of my tingling resentments when, in the former years of my practice—and they seem but as yesterday—I was politely postponed as too young for confidences. My dear young friends, we who pride ourselves on the price of experience, on our sagacity, the gift of time, would give them all twice over for your boon of youth. Some day, when it is gone, you will wistfully look back upon it; but when a man looks back his Eurydice is gone! And what of all qualities of youth is the most precious? That which we older men try to breathe again from you, try to rekindle by the light which is upon your young faces—the quality of enthusiasm. To-day I, unworthy, am to many of you the first teacher of medicine, and the first words you hear in the porch shall be these: Work with us and keep us young. If you keep us young, we shall not destroy the spontaneity of your life; we shall not limit the range of your outlook by the bounds of our dogmatisms. You shall keep our minds flexible, and we will temper your energies. Above all things, know that we call you not here to run your minds into our moulds. We call you here on an excursion—on an adventure—on a voyage of discovery into space as yet uncharted. We have passed before you through the gate of Hercules; we have touched sometimes on the happy islands; we, like the great Ulysses, shall lead you through our experience, "whither gleams beyond an untravelled world." Every hour shall save "from that eternal silence something more, a bringer of new things." Would it be well, then, when we see you upon the threshold of our house, that we should not step forth and give you welcome; that we should leave you to file silently into dusty lecture-rooms, and to stand in tail to inscribe your names on the roll? That would be as dreary a setting forth as a marriage at a registry office; and, if I have but a boxwood flute, I will pipe to you to-day.

Gentlemen, your eyes are to be fixed, not to-day only, upon men; now upon your teachers, who are to be men and not pumps. Those who would set aside all commemoration to-day would to-morrow set aside all courses of lectures. Why, in the name of goodness, say they, is the student to be brought to the lecture-room to hear words drawn from sources open to all; to fill laborious note-books with facts already printed in their manuals. If a lecturer is but a pump, doubtless you would do better to go to the springs for yourselves. But, surely, that which impressed us in our lecture-room days was far less the facts of our profession and far more the character and influence of the men who awakened and liberated our thoughts. I carried away, not rows of note-books—dead arid things—but an impregnation. At St. George's my lessons were the fire, the rapidity, the impatience of fallacy of Bence Jones; the deliberate sagacity of Fuller; the methodical learning and rectitude of Barclay; and in these I speak only of the dead. In Paris I admired the marvellous flexibility, acuteness, and urbanity of Trousseau, the heroic industry and penetration of Duchenne of Boulogne, the philosophic breadth of Bazin, and, if last not least, the great erudition of Daremberg, an erudition which his critical insight and catholic temper enabled him to wield so easily. He happily is yet spared to us, as are the teachers of Cambridge—my *alma mater*—as life-giving to me, but so near me that I cannot here speak of them as I would.

Your lecturers shall, in like manner, inspire you with fervour of spirit, shall teach you the way to handle our materials, the methods of our investigation of them, and the kind of ideas which we think will interpret them. Of finite knowledge we have nothing to fix in you, of finite mental form we have nothing, of systematic doctrine we should offer but a temporary scaffolding. You will not, indeed, have to go over all the ground that we have done. Our fathers saved us many a weary march in barren lands, and you will shorten the labours of your children. Knowledge, you remember, has no royal highways; she may be hidden beside the feet of the humblest wayfarer, and has revealed herself to him whose eyes are open when finer pilgrims have pressed haughtily on. In knowledge there is no great and no small; nay, rather accuracy in what you call small things is not only a virtue of method, but also of morals—an ethical and vital sense of the infinity of creation, and of the patient unsleeping instancy of things; on the other hand, what the world calls great things may be to the eye of wisdom as naught. Of this pride and this humility the lives which we live before you should be an example. Do not think that all this is vague declamation. If it be so, I fail indeed; for, to my mind, the idea of a university consists in a true conception of the force and value of personal teaching. How can an impersonal board be a university? A university is the collective soul of its dead and of its living teachers, an abiding inspiration, a *mater alma philosophiæ*. A university will teach you not to regard your studies within her gates as ends in themselves, but to regard them as progymnasmata or exercises; and if it cannot give a liberal education to every one of its sons, it can at any rate teach them all to know that there are such things as ideas, and to conceive the need of them. A university is a permanent embodiment of the ideal of wisdom as opposed to technical furniture—of the ideal of mental culture as opposed to the collection of "tips" and devices in the memory. Lectures, therefore, should not be comprehensive so much as stimulating, individual, and

even discursive. They should aim rather at the illumination of life than the direction of study, and cordial engagement to thought rather than to the exhibition and transference of acquirements. Fresh and novel perceptions may be welcome, even if precocious or unfounded, if also they are broadly conceived and keep the mind of the student alert:

> "..... The blossoms of Eternity lie hid
> In the dim kindling buds of dreams that keep
> A fluttering pulse within Time's broken sleep.
> Dreams are not idle, dreams have saved the world."[1]

Again, it is as much the duty of a lecturer to mark off the gaps and crudities in his knowledge as to set forth realised truth. If I seem in this way to be addressing myself more to teachers than to disciples, this is but a seeming, for my first purpose is to reveal to the newcomer of to-day that he comes, not as a subject, but as a junior fellow and colleague. The youngest of you can at any rate beat the bushes for us. *Multi pertransibunt et augebitur scientia.*

Dr. Pusey used to say that "Truth often depends more upon the character of him who enforces it than on its own"; and this, gentlemen, is true not only of your lecturers, but of yourselves. All of you will go forth soon, some of you are now going forth, to teach others, not, it may be, from such chairs as this, but each from his place in the world. What mental habit will you take with you, how will you practise, how will you teach? The humblest of you will have some teaching to do, formal or informal. It has so happened that few men have had the opportunities which I have had of forming judgments of our profession as a whole. On the one hand, in London and in the old Universities I have not ceased to associate with the leaders of medicine; and, on the other, I have in the north of England laboured incessantly with the rank and file. Among the leaders of our own, as of all other callings, we find men of great and varied endowments, who have each their own mastery and faculties too strong and individual to have owed very much to methods of education; but in the rank and file I must say that a certain lack of mental training and impenetrability to ideas too often make themselves seen. I am not now speaking of those practitioners who fulfil no more and have aimed at no more than common usefulness, but I speak of men who should be more than this.

On another occasion I have said, and to-day I repeat, that for personal virtues, for a certain ethical habit, which, in its loftiness, simplicity, and unselfishness, is perhaps incomparable, the general practitioners of medicine offer a noble example to all other men, for they carry their high standard of conduct with a humanity, a moderation, and a modesty which do not invariably adorn the righteousness of other men. Yet with all this breadth of practical ethics we do not generally find a corresponding breadth of mental culture. The master mind of Western civilisation has drawn a distinction between the τεχνικοι and the φρόνιμοι, between the man who is well equipped as a craftsman, trained to quick observation and ready dealing with the things of to-day, and the man who may or may not be so well skilled in practical matters, but whose knowledge is far wider and deeper; who has, in a word, a training in philosophy. The mere practical man, valuable as he is, has but a simulacrum of knowledge, a kind of sham or surface instruction, and, having no knowledge of principles, he tends to routine and is unprogressive and wasteful. He is a man of opinions, and as science undermines opinions and treats opinions with some irony and sarcasm, perhaps indeed with some injustice, the practical man tends to wince from science, and will even thank God that he is not a philosopher. His usefulness, then, great as it may happen to be, is essentially temporary and provisional.

It is far otherwise with the man whose mind is opened to ideas, who is, moreover, prepared for life not merely by the appropriation of the thoughts of others, but by the enlargement and development of his own intellect; for indeed we should not only become familiar with the laws of phenomena within our own pursuit, but also with the modes of thought of men engaged in other discussions and researches, and even with the laws of knowledge itself—that highest philosophy. Now this mental training, although it happily exists in a few, is not by any means the note of English medical practitioners as a class. This defect is to be referred to two causes—first, to the want of leisure and of contemplative life among them; and, secondly, to the lack of university education.

The duties of the family practitioner are all abroad. Unlike the lawyer, he has not to put his thoughts to the test of pen and paper; and so complete is his divorce from the desk that even his few spare hours are dissipated. In course of time, the ability even to write a letter becomes atrophied. Happily, however, there are compensations for us. Law and medicine both are liberal pursuits, and promote mental and ethical elevation, as opposed to trade, which, when untempered by the arts of invention, is an illiberal pursuit; and in these days of small profits and close industry, when commercial men can no longer find leisure for self-culture, may be, and often is, actually degrading. Indeed, medicine has an advantage over law in this, that it is more in contact with positive truths, while at the same time it is no less in contact with civil and moral phenomena. Hence the practice of medicine, as we see every day, tends especially to cultivate that kind of critical spirit which we call "common sense." Nevertheless, I repeat, the English doctor too often lacks reasoning power, breadth of view, and flexibility of mind. So, you may retort, does the common run of all men. But, gentlemen, on the whole, we have greater advantages in the kind of our calling, and should stand better. Moreover, I am setting no abstract ideal before you. You will observe that I have spoken of English practitioners—of those educated in England, but not at universities. Now, by English I mean not the Scotch, whether practising in England or at home. When called in consultation by a Scotchman, I expected to meet a man of philosophical mind; when by an Englishman, I expected to meet an honourable man, a shrewd man, a practical man, but not a man of philosophical mind. Now, why is this? Because the Scotchman has been educated at a university; his knowledge has been tested in his own university, and at Scotch universities philosophy is held in honour; whereas the Englishman has usually been educated only at a technical school, and his acquirements tested haphazard in a sort of wit combat with a viewless Board wholly unconnected with his schools. Indeed, the very existence of philosophy—the *mater studiorum*—has been unrevealed to him. And now my old friend, Mr. Wheelhouse, the President of that young giant, the British Medical Association (the only organisation of our profession which is based on broad principles and formed for a great future), member of the Medical Council of Education, and whose personal abilities mark him out as one of the most powerful men in our profession at this day—Mr. Wheelhouse proposes to make this state of things ten times worse than before. By submitting youths to a five-years' apprenticeship to working doctors at a time when their minds are expanding and impressionable, at a time when an ardent love for higher study and a yearning for ideas spring up in the heart, he would send them not where they can feel the influence of great men present and past, not where learning is seen in all her variety and in all her provinces, not where they may associate with men of their own age whose minds are occupied with other forms of culture and in training for other callings, but a student is to be confined to one mind, however able, to one profession, however honourable, to one set of ideas, however fruitful. And as a matter of fact, we know that the ruling mind will often be something less than great, the set of notions too often vulgar, and the teaching at best a teaching, and not a cultivation. Gentlemen, this is but to perpetuate the common-mindedness which I suggest is already our danger—a fault due in part to our defective education, in part to our lack of leisure. I say we are already too narrow and channelled in our thoughts, and too shoppy; and we are to improve our education by intensifying this very habit of mind. We are to make our education more comprehensive by shutting up our students with individuals; we are to strengthen their reasoning powers by therapeutical drill; we are to substitute the ideas of the middle-class parlour for the traditions of a university!

But, says Mr. Wheelhouse, your university student comes into practice so confoundedly ignorant; my purpose is, above all things, to make him an efficient practitioner, to teach him how to manage patients and how to recognise German measles. If, Mr. Wheelhouse would say, after doing this he can chatter about Shelley and Herbert Spencer, he is welcome to his accomplishments; but the broad studies must be complete. Certainly, with this I wholly and ardently consent. No one can be more opposed than I am to superficial *Schöngeisterei*—to literary fribbling and dilettanteism—in the place of solid attain-

[1] Afterthoughts. By Joseph Truman.

ments and practical skill. But one may get roast pig without burning down one's house, and I contend—with an exception to be hereafter discussed—that a man whose mind has been enlarged and strengthened by a university course will, after a briefer drill, make a more skilful practitioner than one whose technical craft is gained by routine and is not vitalised by a comprehension of principles. It is no truism, gentlemen, to repeat in this place that knowledge is one and indivisible, and that he who is content to pick up isolated chapters of learning has no living knowledge at all.

The medical journals of late years have been infested by letters from qualified men, who, although not "M.D.s," desire to use the title of "Dr." They say, with a not quite ingenuous play upon words, that, being called "doctors" in a colloquial sense, they should be entitled "Dr." in the academic sense. They add with more truth that all practitioners approximate in qualification should have an equivalent nomenclature. It is difficult to see where would be the ultimate advantage of holding the title when it had ceased to be distinctive, and the disadvantages of carrying a professional label into general society seem obvious. It would be better that we should all return, like other gentlemen, to the sweet simplicity of misterhood. Meanwhile, however, the grievance is an acute one. A good student is admitted into one of the guilds of the higher class, which, knowing that they have no academic quality about them, honestly decline to allow their craftsmen to use university titles, while an inferior student slips into the profession by way of one of the guilds of the lower class which may have no such honesty, and are said to have connived at the irregular use of university titles. Straightway the worse man puts "Dr." on a red lamp by the side of his better brother, who has to content himself with "Mr." on his more modest brass plate. Nay, further, some universities have degraded themselves *pro vice* into mere examining boards, ignoring the truth that a university degree signifies a formation of mind, a habit of thought engendered by living within the influences of an organisation of all faculties; ignoring the truth that graduation signifies a life, and not a mere register of proficiency. These universities have given degrees without the residence which alone can give character to the student. The mischief all this does is not yet fully seen, although the more thoughtful men of our profession are now aware of it. Not the least of its harm is the baneful effect which it has upon the older universities, which, as at Cambridge, are driven to compete for medical students, not only by the most excellent method of enlarging and improving their apparatus and cheapening costs, but also by the less excellent method of narrowing the scope of their training.

Everywhere an endeavour is made to pursue two incompatible courses—namely, at once to keep up with the vast extension of professional studies, and at the same time to shorten the student's career. To strive with this impossibility men are brought into special studies at an earlier age, and a due civil and philosophical training is denied to them. I am not one of those who regard the classical as the only real education, any more than I so regard the scientific; neither alone suffices. An educated man cannot become so on one study alone, but must be brought under the influence of natural, civil, and moral modes of thought. The late Rector of Lincoln, to whose paper on Oxford Studies, published in 1855, all educational reformers are deeply indebted, then spoke as follows: "The necessary tendency of advancing civilisation is to divide and subdivide the applications, as of labour, so of thought. The professions tend to split up into branches, and skill in one becomes more and more incompatible with skill in another. The more a subject has been explored, the more time does it take each succeeding student to follow the steps of his predecessors. To prevent the disabling effects of this specialty of pursuit it becomes the more requisite to secure at starting a breadth of cultivation, a scientific formation of mind, a concert of the intellectual faculties ..... Clear-sightedness, sagacity, philosophical reach of mind, are to a great degree communicable by training. ..... The difficulty is to get mental cultivation recognised at all by those who have it not. Cleverness, talent, skill, fluency, memory—all these are understood and rated in the market. A cultivated mind, just because it is above all price, is apt to be overlooked altogether. It argues some discernment and a considerable degree of education in a society in which such gifts are even appreciated as useful. And let it once establish itself, even under false pretences, such is its marvellous ascendancy, that, like refined manners, it will conquer, and propagate, and extend itself by sympathy, by imitation, and, above all, by education. In this subject, eminently, it is true that the beginning is everything." These, gentlemen, are words of rare wisdom. Lay this foundation first, put your trust in this, and technical training will come far more rapidly, far more efficiently, and far less wastefully afterwards.

I have hinted, however, that there is one special case in the teaching of our students—a seeming exception to the common rule of mental training first, and technical training second—namely, in respect of the practice of surgery, not in its more abstract functions, but as a handicraft. It is a commonplace in the profession that a philosophical surgeon and a fine operator do not always coexist in the same person. No doubt manual skill must be taught from youth; and in the education of a surgeon, therefore, if not of all persons, some means, not necessarily anatomical, are to be taken from an early age to confer delicacy and dexterity of handling. But you will say we cannot afford all this; *il faut vivre*, and we have neither time nor money to spend on real studies; we must go for bread. Well, then, gentlemen, you have to take a back seat. But is this so? In the first place, excuse my rudeness, but it may be with you as with the *Ewig Weibliches*—the eternal womankind—you are lovely, but there are too many of you. The meshes of the net may be too large. As was said of the profession of the law, there is some room in the upper storeys, but the basement is crammed.

I am sure we could ill spare any one of the ingenuous faces I see before me; but, when you have well sped, you will come over to my side as regards the propriety of largely extending the curriculum, both in respect of preliminary and of special education, even at the cost of lessening our numbers. As it is, we make ourselves, by our very numbers, the prey of the hucksters who too often form the majorities of our local councils, and who are able to point triumphantly to piles of applications from highly qualified men driven by the increasing competition in the ranks of the profession to find rest in any quiet place outside it, however meagre the pay.

Urban or district councillors, conscious of their ability to be as good doctors as any of us, had they not better avocations, say publicly that any handy man can do the sanitary work of a city or a province. They decline therefore to pay for supererogatory qualities. The greatest danger in the future of democracy is its blind hatred to payment for special mental ability; men of but a little more than average ability are scarce; they are a natural sport, and should be selected. They should be secured for the public services at the price of their scarcity and of their profits in private adventure, for none is more wasteful than a dull official person. Your vestryman, however, values all other men at a rate a little under his own. He will boast one day of his success in cutting down the doctor's salary, and on the next expends £1000 upon the researches of Mr. Mullins. In Bunyan's dream, Messrs. Simple, Sloth, and Presumption lay asleep a little off the path with fetters upon their heels. Unhappily, they are now awake, their fetters are struck off, and they are put upon the jury of Vanity Fair, and that brisk lad whom the pilgrims met coming down the crooked lane from the country of Conceit, and whose name was Ignorance, is the justice's clerk. Public bodies dare not evade the charges of the lawyer. Both at home and in the city good law means money, and bad law is too soon found out and Demos discredited. But the evils of bad sanitation are not instantly obvious to the people. Pestilence and death are good old customs with which it is rash to meddle in an innovating spirit. Collectively we call them Providence, and it may be blasphemous to talk of evading them. In any case our sanitary mistakes are soon buried underground, and by the widow and the orphan are remembered in silence. So, unchidden, the tradesmen who too often govern us can satisfy their jealousy of scientific men, and boast in the market place of their penny wisdom.

Now, gentlemen, what is our defence? To turn a saying of Coleridge, we must create the taste by which we are to be appreciated. We must lay hold faithfully of Mark Pattison's words that "such is the marvellous ascendancy of mental cultivation that, like refined manners, it will conquer and propagate and extend itself by sympathy, by imitation, and, above all, by education." But you may

say, is it not an impertinence in me thus to preach a university education to students who cannot as yet all enjoy it? Is it not an unkindness as well as an impertinence? I trust not. It is in no play with words when I say to you that you are all members of that chief university—the world. This world-university has indeed one drawback. Like Peruvian bark, there is much husk in it, and it needs two stomachs to digest it. The university of the world, gentlemen, has much husk in it, and needs the time of two lives for its digestion.

In local universities, therefore, we form microcosms; we select and compact the properties of the world in alkaloidal forms, so that worldly wisdom may be taken in more readily and less wastefully. When these local universities cease to represent universals—are no longer of the essence of the living world from which they draw their being—they grow sterile as Oxford in the last century. You have then in the world at large that education of which a university is a compendium. This all of you have; it may be less convenient, but it is even more efficacious if you can use it economically. Now, of young men, the world means for one Ouida and the Vaudeville; for another, Mr. Burne Jones, Mr. Oscar Wilde and "Ballades in Blue China;" while for a third a pair of white-legged chestnuts and the prescription of bread pills for old ladies make life itself. Charming things all of them, but not universals. If the world is to be your university, your selection must be early and rigorous. Virility, imagination, and intellect must come first, and if then you retain a taste for trappings and pedlery, they may come afterwards.

When I began to practise, or rather to offer to practise, I had a large share of the contemplative life, and by good luck I turned it to account. I read three books to enlarge my medical mind—namely, Grote's "History of Greece," Gibbon's "Decline and Fall," and Mill's "Logic." Rather by accident than by design, I fell upon these three; but if to these can be added some great work of imagination (every man who has been at school can keep up his Homer with but a little trouble, and in any case has Shakespeare at his side), I think no finer culture could be had. This every student can do. This, and far more than this, an old friend of mine determined to do and did in the spare hours of a practice perhaps the most exacting and unrewarding I have witnessed. So, gentlemen, you may attain to the university mind even if you have not been rubbed against university bricks. But ere long I trust the largest and the richest city in the world will do what Yorkshire and Lancashire have done in their degree—will establish the largest and richest university in the world. Those who see farthest are now calling for it, and it is coming, but, I fear, not during your curriculum. What a chance now for a millionaire, or even for a demi-millionaire, to evade oblivion!

Acquit me, then, of any charge of shrewishness in the words I have spoken, words spoken in sympathy. I trust, indeed, when with returning steps you issue from these gates again into life, that you will show yourselves men as practical as the President of the British Medical Association can desire. It shall be no fault of St. George's if you do not. Nevertheless, I agree with Mr. Wheelhouse that an apprenticeship to the domestic side of your work, a familiarity with its lesser marks and byways, is necessary. These we cannot teach here. After your faculties are trained and strengthened in their main branches, your lesser shoots shall be duly laid in. But with capacities thus enlarged, one year's apprenticeship would do the work of five in earlier age; and an obligation upon young men thus to apprentice themselves before the completion of their studies would have my approbation and active support.

At Cambridge there used to be a step called the Licence to Practise, which was not granted until a year had elapsed after first graduation; this step, now disused, might well be revived in the manner I have indicated. And, thus apprenticed, you would not only receive, but give also. The practitioner who received you would, while finishing your dexterities, learn, in his turn, the freshest ideas of the schools; an ever-new and eager young graduate, year by year, would quicken his thoughts, and not permit them to become atheromatous. Fancy yourselves, gentlemen, not bottle-washers, but missionaries *in partibus*—ministers of light!

Man, like an ant or a rook, is a social animal. Alone he withers, in society he organises himself, and compasses his ends. Mind impregnates and quickens mind, none suffices for itself. Men say, and say ungenerously—not regarding the kind of our art, not regarding the temptations of our calling—See how these doctors differ, see how they love one another! We, and not we alone, gentlemen, give cause for these gibes; let us give cause for gibes and japes no more. We differ from each other in part because progress depends upon differentiation, but in part because we are not large-minded enough to see the principles of things. We have gone through a fixed routine of education which hampers us. We do not see that, if a man really understands his subject, he is able to make that understanding clear to intelligent laymen. We too often pronounce opinions rather than enlighten our subject. "Knowledge and opinion," says Hippocrates, "are two things; the former begets knowledge, the latter ignorance." Where the remedy for this lies I have shown at too great length already. Then we mistrust each other. Why? Because medicine, of all callings, demands the most sensitive personal honour, the most vigilant regard to others, the closest brotherhood; more than divinity, because it is practised for gain; more than law, because it is practised in the closet and not in the forum under the eyes of men. In no profession is selfishness more tempting, in none is detraction more easy and more secret, in none is smartness more immediately rewarded, in none is a vulgar ideal so glittering, or worldly success so near the hand of supple and talented persons. Nowadays we "manufacture our celebrities as we go on," and the pet of the monthly reviews, always something less than the best, is run after by the public with ovine sequacity.

I, who have been in the thick of the fight, now standing aside, may speak more plainly to you than I could do when my own gain or emulation might have seemed to disturb my vision and to warp my sentiments. *Spectatum satis et donatum jam rude quæris.*

I will venture, then, before we part, to offer some advice to those of you who will soon enter life. You will find that, both in respect of competition and of consultation, the elements of mistrust are not inactive. The temptation to score off another man's openings seems to some persons irresistible in spite of the certain turn of the wheel against themselves another day. Perhaps they hope to win on the average. How mean it is! How mean even between rivals! But for a consultant to act thus by word, or even by look or gesture, is cowardly and base indeed. At the moment the consultant has enormous power, and should therefore err on the side of generosity, especially in the absence of his brother practitioner. And yet who does not know the raised eyebrow, the shrug, the "I could an' I would" air of the fashionable consultant, as he listens condescendingly to the patient's report of his own doctor's opinions. *Salus agrotantis suprema lex.* The patient's safety is before all else, that must be clearly posited, but his safety rarely comes even into pretence. The occasions are very rare in which the safety of the patient involves a breach of consent between his doctors. In my experience a family attendant was always very glad to try any plan of treatment which seems reasonable, and it is the duty of the consultant, where treatment is manifestly changed, to speak of the change, not as dictated by himself, but as the result of a joint consultation. In most cases he can truthfully add that a change would not have been made unless the previous treatment had been well tried in vain. Changes of diagnosis, except in case of grave error, can usually be developed gradually, so that sudden declarations of change of opinion are avoided. But the public may say, Is this reticence fair to us? Certainly, if the patient's interests be safeguarded, that is, if the doctor in charge be not an ignorant fool or a shifty knave, and in these cases the consultant must, by letter or visit, keep a sharp eye on the progress of the case—the reticence is not only harmless to the patient, but of the greatest value to him. Nothing does a sick man more harm than to have his confidence shaken in his doctor, and to swap horses in mid-stream is rarely desirable. Even where a difference between two medical men is irreconcilable—and such cases have occurred to me from time to time—the difference can be amicably arranged. In thirty years I never had to supplant my brother on this account. The family doctor must be charged with the duty of setting forth the difference to some sensible friend of the patient, and in my experience this has always been done most conscientiously. Such cases are usually obscure and difficult, and it becomes the consultant in his turn to point this out, and to express a willingness to call in a third physician to aid in the decision. If all parties are straight and unselfish, these diffi-

culties are readily adjusted. Indeed, with seasoned practitioners, consultations are always smooth, and nearly always welcome on both sides.

It is you touchy young men, just out of the schools, who give us the trouble—who bridle up at the suggestion of a consultation, and declare that nothing more can be done. An older man knows that a good talk over a case is, at any rate, a pleasant meeting, and probably valuable to him at least in bringing about an orderly revision of the symptoms and in refreshing the confidence of his patient. He knows, too, that when a doctor is sick himself he calls out for a consultation sooner than a layman does, and runs from one doctor to another in defiance of all convention. I never knew a sick doctor who failed to consult at least three London physicians in a forenoon, usually concealing from each his visit to the others. The fact is, life is dear not to doctors only: to me it is marvellous, not that patients slip off to consultants, but, with the fear of death before them, they are so loyal to their own advisers.

Always, then, welcome consultations. Anticipate, if possible, the patient's wishes in the matter, or, at any rate, the wishes of his friends. Never repeat the silly boast, "My patient has such confidence in me he does not want a consultation." I used in secret to hear rather too often the other side of that story, and if the patient should not want it, you ought to want it. The public is right in regarding a consultation as at least a tribute to the sacredness of human life, and it keeps doctors up to the mark. For these reasons, if I had my way, no man, not even a pauper, should die of acute or obscure disease without a consultation. State clearly always whom you consider would be the best consultant for the case, but, having done this, meet any honest man the patient really wishes for. In the height of my practice I gladly met any of my juniors, even my own pupils, if things pointed to it; and very pleasant consultations we used to have. At the same time, it is better that professed consultants should not only, of course, never visit any patient alone, but should even discourage frequent calls at chambers if the visits, losing the feature of consultations, begin to merge into sole charge. Under such circumstances I always regarded it as my duty to suggest that an ordinary attendant should be selected, and consultations held as occasion required. But I regret to add that often I never saw the patient again.

I cannot wonder that an honourable reticence has less attraction for us, that a calm and patient temper seems too slow for us, and that the bonds of fraternity are weakened, when self-seeking, ostentation, and *finesse*, if they do not take men into the first rank of our profession, at any rate make a very good thing for very many of them. The spirits of the faithful have thus been tried, not in our day only, but in all times of luxury and pride. But perhaps in all ages, certainly in our own, I am thankful to say that purity, disinterestedness, and devotion not only bring peace with them, but even in the world itself surely win that success which a wise man would seek.

We of our generation prevailed over our fathers, you in your turn will prevail over us, and a mightier reaper shall prevail over us all. Our fathers called us into these halls, and set before us the record of a noble tradition, the example of noble life; we call to you, and you shall call to your children, and thus, so long as sickness and sorrow abide amongst us, we frail men of a day shall still raise our eyes to that lofty conception of our duty which Hippocrates himself set forth in the first chapter of his scriptures, a conception which, with all our shortcomings, I trust and believe has been handed on by his successors undimmed and undefiled to this day.

OPEN SCHOLARSHIPS. — *Guy's Hospital:* The Open Scholarships in Arts have this year been awarded to Mr. William S. Handley, Loughborough Grammar School, and Mr. John Robert Steinhaeuser, Sutton Valence School. The Open Scholarships in Science have been awarded to Mr. John A. Howard, King's College and Guy's Hospital, and to Mr. Arthur H. Leete, University College, Aberystwith. — *St. Thomas's Hospital:* Open Scholarships in Natural Science: First, value 125 guineas, awarded to Mr. T. G. Nicholson; second, value £60, awarded to Mr. A. E. Russell.—*St. Mary's Hospital:* The Open Scholarships in Natural Science have been awarded to Messrs. H. J. K. Bamfield, A. W. Sanders, A. Stanley, and A. E. Wilson; and the two University Scholarships to Mr. A. Senior and Mr. A. E. Shaw, both of Cambridge.

Introductory Address.

A PLEA FOR "THOROUGHNESS."

Delivered at the Yorkshire College, Leeds, at the opening of the Session, October 1st, 1889,

BY W. T. GAIRDNER, M.D. EDIN.,

PROFESSOR OF MEDICINE IN THE UNIVERSITY OF GLASGOW, PHYSICIAN TO H.M. THE QUEEN IN SCOTLAND.

GENTLEMEN,—Some few weeks ago I read in a newspaper somewhere a paragraph, which, whether written in jest or in earnest, I thought at the time might be made the text for some remarks more or less suitable to the present occasion. You will perhaps laugh at me, or suppose that I am laughing at you; but at all events I will pray you to laugh *with* me, when in the presence of this august assembly I venture to read the said paragraph. Here it is:—

"AN AUTOMATIC DOCTOR.—A Dutch apothecary has just taken out a patent for a novel automatic machine in the shape of a wooden figure formed like a man. The figure will be covered with compartments labeled with the names of various ailments. The sufferer has only to place a piece of money in the compartment upon which the name of his illness is inscribed, and forthwith will appear a pill or powder suited to his case. The machine is constructed upon the same principle as the ordinary automatic chocolate and bonbon machine. A Dutch paper predicts a brilliant future for this very original doctor."

Now, I am not going to ask such of the young men now before me as are applying themselves to medical study, "Is this *your* ideal?" That would be not only too absurd, but even (but for its absurdity) insulting to an audience whom I am desirous above all things to attract and to please. But I am entitled at least to ask, Why is this *not* an ideal form of medical advice and prescription for a considerable proportion of those who may require such aid in sickness? In the attempt to answer this question, I believe we shall find a few nuts to crack which may occupy us profitably for some portion, at least, of the time usually devoted to an address such as this. Think, in the first instance, of the immense comfort and convenience of the proposed arrangement. Why, you might have these machines at almost every railway station, always ready for use just as you pop your penny into the slot when in quest of a cheroot, or of the wax vestas to light the same! Only, let us hope, for the sake of the poor doctors who are not automatic, that the "piece of money" to be automatically administered—the fee, in fact—would never degenerate lower than half-a-crown! With this proviso, one seems to see how the thing might work tolerably well in some cases. There are a good many of the "thousand natural shocks that flesh is heir to"—perhaps even a majority of them—very easy to name and very well defined indeed to the sufferer. And some of these are, moreover, very easily put a stop to, if you take them at the very beginning. "Principiis obsta"—here you have it all made clear to the most ordinary capacity; no trouble, no nervousness, no hesitation nor procrastination, no embarrassing or uneasy confidences with a man of skill, only half-a-crown in the slot, and there you are! Liver, stomach, heart, lung, brain, biliousness, colic, blood-spittings, rheumatism, neuralgia — all under control, without a moment's delay, and by the most approved remedies in each case, at every railway station, and in every public place! Surely there is something to be said, *primâ facie*, on behalf of such an arrangement as this!

I am pleading, you observe, the case of the "automatic doctor" as against the living, flesh and blood doctor, in these words; and some of you who are readers of Carlyle may be reminded (*longo intervallo*) of the severe, almost savage, irony (worthy of Dean Swift) of his proposal to substitute "cast-metal parsons" for our spiritual guides and instructors. In both cases the suggestion proceeds upon the lines of economy and convenience; and further, on the assumption that the automatic is nearly, if not quite, as good for certain purposes as the living article. But it might further be maintained, in the case of the "automatic doctor," that it is by no means a necessary part of the case that the machine-made should entirely supersede, or even replace, the living doctor of medicine. If some more or less

fastidious persons object to be prescribed for anonymously, why should there not be an acknowledged, even a distinguished, living authority behind the dummy? or even more than one? Fancy a well-organised group of "automatic doctors" (perhaps with some distinctive uniform) literally doing the work of Sir William Jenner or Sir Andrew Clark (so far, at least, as prescriptions go) in every railway station in England, by carrying the most famous and successful of their acknowledged recipes, ready made up, in the most economical way possible, to almost every sick person who can define his own ills to himself sufficiently to profit by their skill thus imparted. I am assuming, of course, that there will be a copyright in the recipes thus used, and that the law will protect the authors of them from piracy; so that an automatic doctor who may represent a great physician by using his recipes shall do so only by previous arrangement with him. Can there be a doubt, do you think, that very considerable professional incomes might be made in this way? and that hundreds, nay, thousands, of comparatively poor persons would eagerly avail themselves of the help that could thus be had at every man's door, without a visit to London or from London, and a correspondingly heavy professional honorarium?

You will allow that I have argued the case of the dummy or automatic doctor at least as well as the newspaper from which I derived my information; and, indeed, so as to present it with every possible advantage and in the most really professional form attainable, or perhaps imaginable. I will now proceed to inquire a little more seriously what it is that hinders a manner of treating disease like this from being habitually adopted—or, at least, admitted frankly as in accordance with an enlightened medical opinion? For we may take it as certain that the "automatic doctor" carrying the authority of Sir William Jenner or Sir Andrew Clark is just as remote a contingency as would be Carlyle's "cast-metal parson" doing the work of either Canon Liddon or Mr. C. H. Spurgeon. Why is it, in other words, that in matters of health and disease there is not only no possible substitute for the living man as a counsellor, but that even the living man, to satisfy the just expectations of an enlightened public opinion, must undergo the training, acquire the experience, and generally go through the hard and life-long discipline alike of intellect and of character, which you, my young friends, are now only beginning to appreciate, and which finds its final expression in some of our greatest physicians and surgeons.

Had it been even possible to formulate adequately any considerable portion of the medical art in the manner required for merely mechanical prescription, not only would this have been done long ago, but the progress of the ages would have given such stability to the results that the treatment of disease in this nineteenth century would have been mostly stereotyped (as one might say) beyond the possibility of change or revolution. Instead of this we have the curious fact evidently before our eyes, that in no previous age of the world has so little importance been attached to formulæ, or so much to the labours, experience, and opinions of individual men dealing with disease, as in the present. I am not speaking, observe, of disease as matter of doctrine, or as treated of in books, or in the lecture-room, but disease as occurring in the sick chamber or hospital. You will find it, I believe, to be the simple truth that at no time in the world's history have the medical advisers of the sick been so little hampered by traditions as at present; at no time have the methods, the formulæ, the remedies of past ages undergone more revolutionary changes, and yet at no time have the living influence, the character, the personal status of the physician and surgeon been more adequately maintained than precisely in this latter end of this nineteenth century of ours. So much is this the case that if you take up a book which represents the traditions of even less than half a century ago, you will find these traditions almost entirely superseded, and even hopelessly out of accord, on many points of the first importance, with the matured opinion of almost every one of our greatest masters of the art at this present hour, either in England or in any part of Europe. Not one in a hundred of the medicinal formulæ so copiously scattered over the pages of Copland's Dictionary, for instance, obtains any considerable amount of favour or support to-day; not one acute disease, probably, is treated as he and the greater number of his contemporaries would have treated it; nor is there a single article, perhaps not a single page, of that immense and voluminous work, on which the merest tyro of to-day would not be amply justified in writing numerous emendations and improvements, founded on the instructions and experience of a four-years' medical curriculum; and yet medical opinion, as such, and especially individual medical opinion and influence, far from losing in weight owing to this prodigious amount of destructive criticism and revolutionary change, are of wider scope and further reach than ever before. On all this, considered as historical fact, I have had to expatiate a good deal of late years in various addresses and papers, some of which have lately been collected into a volume.[1] I am therefore the more disposed, in the present instance, to forego the argumentative defence of this position, and to assume it as proved, in order to make its consequences instructive, if possible, for you.

One consequence of this state of things I have already foreshadowed, or rather have affirmed—viz., that *real knowledge*, by which I mean something quite different from learning, or hearsay evidence of mere opinion, about disease and its cure, counts for more in the individual man, even in the most ordinary general practitioner, than it ever did before. Not so very long ago it was possible for a man with a very ordinary amount of industry and of scholastic attainments so to saturate himself, as it were, with the doctrine of a particular teacher or school as to command a certain amount of attention and respect for opinions enunciated in terms of that doctrine, however remote they might be from the facts of a case under observation at the moment. The fever in this man (an actual patient) was, on very slender evidence, adjudged to be a malignant, or a putrid, or a low nervous fever; it arose from this or that depravation of the humours, this or that *materies morbi*, this or that entirely suppositious or hypothetical change in the blood, in the nervous system, in the solids of the body, according as the man speaking to you was a humoralist or a solidist. A very few obvious indications sufficed here for the diagnosis—i.e., to enable the fever to be placed in the nosology, and so to get a name. The treatment followed almost as a matter of course from the name, or rather from the theories or hypotheses connected with the name, according to the school or system of doctrine in which the observer had been trained. Now, I am far from saying that this method of viewing and of treating disease is altogether extinct, even at the present day; but I am free to affirm that it has been very much modified. Any one of you, gentlemen, after even a four-years' curriculum, will be in a position to form a far more direct, sounder, and less ambiguous judgment upon many cases of fever and acute disease than any man who wrote at large upon them, even in the first third of the present century; because you will have to apply tests, and to use methods of observation, and physical means for the detection of local changes, which were then almost unknown. Do not let this assurance, however, make you conceited or contemptuous of our forefathers; there is still plenty of room to say that neither they nor we have anything like a complete knowledge of any fever or any acute disease.

When I hear a man talking at large and dogmatically about "biliousness" (a term of Abernethy's, which neither Abernethy nor anyone else has been able to explain further than that it requires blue pill), or about "congestion of the brain," or anæmia of the same, which he cannot have seen, and does not know at all as really existing, or about "irritation of the mucous membrane" (so beautifully vague that it may mean almost anything), or about "hyperæsthesia" or "hyperæmia," or, to use a more modern phrase, "neurasthenia"—I know that he is in the stage of mental progress represented by those old theoretical views of the fevers to which I alluded a moment ago. He is using words, not to set forth knowledge, but to conceal and gloss over essential ignorance; his diagnosis, and prognosis, and treatment will probably all follow the same lines, and be based upon some intangible theory or current hypothesis of his own or someone else's invention, and not upon the plain facts and carefully studied details of the case before him. Therefore it is that I urge upon you young men to get into the habit of steering clear, if possible, of all such mere vague and misleading phrases. Try to think of diseased phenomena as men do who have and who use (up to a certain point) the means of *knowing them as facts*, and not merely *speculating about them;* men armed with the stethoscope and ophthalmoscope, and laryngoscope, &c., and with chemical and microscopical tests at hand, and the thermometer, sphygmograph, &c., to give the exact indications of fact,

[1] The Physician as Naturalist, 1889. Glasgow: James Maclehose and Sons.

which should place you out of the bearing altogether of these survivals of ancient, sometimes even of mediæval, theory, which may for a time usurp the place of medical science, but are no more closely related to real knowledge—that is to say, the true *science*—of disease than the atoms of Democritus and Lucretius, or the Vortices of Descartes, are entitled to rank as physical science in the modern acceptation of the words.

Now, the attitude of mind which I am commending to you (for as a mere attitude of mind it is of more value to you than oceans of "cram," or even of crude information about disease, in respect of your future career) must be cultivated; and it must be cultivated early if it is to rule in any considerable degree your education as medical students or practitioners. This is all the more necessary to be said—indeed, to be insisted on—because the opposite attitude, which for distinction's sake I will call the "automatic" attitude, is still widely prevalent, and is much more easily learnt. It did not require the suggestion of an "automatic doctor" to teach us that much of our casual prescribing is, as it were, or was not long since, done by machinery or by rote.

It is very easy to lay hold of one or two leading symptoms or complaints and to call them a *disease*. It is very easy then to take down a little book of *formulæ*—it may be the recipes of very distinguished physicians; to look out the appropriate *name* of the disease supposed to exist, and then have a shot at it with the first *recipe* that comes to hand. That is what I am calling the automatic method. But the true physician knows that the diseases of our poor humanity in their ever-varying aspects are not thus to be formulated; and further, he knows that what he has got to treat, and to cure, if he can, is not the *disease*, as regulated and named by custom, but the *man who is afflicted by the disease*—the whole man, and not only a part of him; all his disordered functions or altered structures, and not only the particular point where he feels the pain. Therefore it is that the "automatic method," easy as it is in many cases to learn and to apply, will not do even for this nineteenth century, and will be thoroughly exploded in the twentieth. Easy? Yes, but just because it is easy it is correspondingly fallacious. It ignores, or sets aside without due consideration, all that a more carefully disciplined modern physician places in the front rank of importance—hygiene, the inquiry into causes, and treatment of the highest order depending upon these. It recognises only the disease and its assumed antidote—and thereby for the most part fulfils Voltaire's well-known sarcasm, that the art of medicine consists in putting a number of drugs of which one knows little into a body of which one knows even less. There is a fatal facility in this method, which has made it specially appropriate for quacks in all ages. To use the words of Hamlet to his faithless friends, Rosencrantz and Guildenstern, when the latter declares his inability to play upon the pipe—"'Tis as easy as lying: look you, these are the stops. Do you think that I am easier to be played upon than a pipe?"

I do most earnestly trust, gentlemen and students of this medical school, that, between those two contrasted attitudes of mind as respects disease and its cure, you will decide early, and be safely guided by your teachers as to which you are to choose. For upon the choice you make depends almost entirely (apart from more individual moral and intellectual characteristics) whether you will be found really advancing the art and science of medicine, or whether you will be of those who sink deeper and deeper into the ruts of routine practice and retrograde theory as life goes on. But I cannot persuade myself for a moment that in a school which can boast of three or four generations of such distinguished and progressive surgeons as the Heys and the Teales, and which even to-day and yesterday has, or has had, such leading spirits as Clifford Allbutt and Wheelhouse, there can be a moment's doubt as to your decision. With such traditions and such examples before you, it is morally almost impossible that you should become, or wish to become, "automatic doctors." I will only in a few words point out to you what is, in my opinion, the most important kind of discipline for enabling you to tread successfully the straight and narrow way that leads, not to the attainment of a high and varied medical culture (as to which you must, in the main, depend upon your teachers and on the authorised curriculum), but rather to the state of mind which alone makes such attainment possible. For you must take it from me that at every step in your career the "automatic doctor," in one insidious form or another, will stand athwart the path of progress, and may even, with some of you, tend to stifle the nobler impulses by proving how very successful he is—with the public. From the merely lucrative point of view, there are but few even of our most successful physicians who could compete with the highly automatic money-making machinery of Holloway's pills and ointment, or old Dr. Jacob Townsend's sarsaparilla. From any other than the merely lucrative point of view, and happily, in the end, with most of you (I trust), even from the point of view of a reasonable worldly prosperity, it is most undesirable that you should yield, in the very slightest degree, to this insidious form of temptation.

Now it is at this point that I find it needful to have a very few words with my friend Mr. Wheelhouse, not, I trust, inappropriate to the present occasion, concerning some of the remarks which he made here a few weeks ago in that most admirable address of his, as president of the British Medical Association. I do not suppose at all that we differ greatly in essentials, or perhaps even in details; certain I am that we have both one object at heart, the advancement of our profession, alike in its essential usefulness and in the good opinion generally entertained of it; which, indeed, forms a part, and a large part, of its usefulness to the public. But some of the remarks in that address appear to me to be open to an interpretation which possibly is not the one intended, but which at all events I desire not to allow to pass current without a *caveat*. It seems to be assumed or suggested that, in order to keep a medical education upon what are supposed to be *practical* lines, it is necessary that every student, before getting his name on the Medical Register, shall have had opportunities of seeing, handling, and in a certain sense treating, almost every kind of common disease and every ordinary type of infectious fever. By parity of reasoning, it would equally be necessary, as a security to the public, that every man admitted to the Register should have done every minor, or even possibly every ordinary major, operation, so that nothing should come to him hereafter so as to find him quite devoid of previous experience. Now, while I am as anxious as Mr. Wheelhouse or anyone else can be to improve, in every reasonable sense, the practical side of a medical education, I venture to say that what I have now put into words of my own as being suggested by the address referred to is not, to my mind, even a good practical ideal. Moreover, if any such ideal is to be carried out, or attempted, it will be absolutely necessary for the General Medical Council to go back on their late resolutions with respect to the "covering" of unqualified medical assistants; for, without some sort of "covering," lawfully or unlawfully, how is this extent and variety of practical experience which is regarded as essential ever to be attained by the majority of students or of undergraduates? It will be conceded that in order to make an experienced as well as a properly instructed practitioner, it would be requisite that he should have had opportunities of setting fractures and reducing dislocations; of performing venesection; of passing the catheter, not only in the normal subject, but through strictures and other difficulties; of treating and of observing throughout, with a certain amount of responsibility, cases of measles, pneumonia, typhus and typhoid fevers, phthisis, small-pox, rheumatism with and without cardiac complications. Why not also of performing operations in strangulated hernia, tracheotomy, ligaturing of arteries and veins, and other cases of emergency which, according to the programme just referred to, ought, if possible, to form a part of the training necessary to fit a man completely for all the necessities of general practice?

I apprehend that it is only necessary to put the case in this form in order to show that there is a fallacy somewhere—I do not say in Mr. Wheelhouse's argument, but in the conclusions to which I suppose his argument will, if carried out logically, apparently lead. I will therefore here affirm that my own view of what is essential to a practical medical education differs in some respects from that which I have presented above, using (it may be erroneously) the name of Mr. Wheelhouse. Speaking from my own experience as a teacher, I hold that the hitherto unsolved problem of a perfect medical education is to be sought in a direction nearly the opposite, or converse, of that just indicated—viz., *not* that the student or candidate for a diploma should have seen and done personally almost everything, or even many things; but that he should have seen and done comparatively a few things in such a way as to give a proper foundation or leverage, as it were, for attempting successfully others which have necessarily lain outside the possibilities of a young man's experience. And accordingly I have come to regard it as of far greater importance that

every case observed or dealt with in any way by the student, or in his presence, should be *thoroughly* observed, and its treatment *thoroughly* understood, than that a much greater number and variety of cases should be so observed and so treated as to beget habits of imperfect observation and loose thinking—in short, the habits which in their developed form give origin to the "automatic doctor" aforesaid.

This general principle being affirmed (for it would be out of place, I think, to go further on the present occasion), I am content to leave the practical questions arising out of it for settlement by wiser heads than yours or mine, with only one additional remark. It has been several times affirmed by way of criticism on the present curriculum of the schools that a young man may have gone through it all, most carefully and well, and yet never have actually seen a case of measles. Well, that is a misfortune, and to the extent of my own personal influence (under the difficulties arising inevitably from recent sanitary legislation) I have always done my very best to remedy it, or even to render it impossible, in the case of my own students. But I hold it to be far less of an evil that a man should go out into practice, not having seen a case of measles, than that he should have seen, and handled, and treated hundreds of cases of all manner of common diseases, after the frisky manner of Mr. Robert Sawyer and Mr. Benjamin Allen, the undying literary types of the *ancien régime*, under the system of compulsory apprenticeships. And I sincerely trust that, if any attempt is made (as seems likely) to restore to the medical curriculum whatever may have been good in that system, it will be under such wholesome regulations as to time, place, and manner as will effectually give substance and reality to the instruction afforded, and avoid perpetuating in a new generation, or perhaps in two or three of them, the routine practice, and the slovenly and hasty diagnosis, which could alone make the suggestion of an "automatic doctor" a possible thing.

These, however, gentlemen, are considerations not for you (at least in this stage of your career), but for your seniors, and especially for the General Medical Council, and Mr. Wheelhouse as an influential member thereof. I trust I have not in any way exceeded the bounds either of duty or of courtesy in submitting to you and to him these remarks (somewhat longer, perhaps, than I intended) on this most important subject. What remains for you to do is to avail yourselves fully of the splendid opportunities that lie open to you in this medical school and in your magnificent hospital, for laying the foundations, both broad and deep, of a medical discipline that will stand the strain and support the weight of the responsibilities that will by-and-bye be laid upon you. How this is to be done in detail I have already considered in several of the addresses included in the volume I spoke of, and of which this is in part the echo in a somewhat different form. The gist of it all is that the instincts of the naturalist, the love of nature and of fact, the reverent study of the laws of biological science, and of the physical sciences which underlie the phenomena of living as of all other matter, form the salt which redeems all our professional work alike from barrenness and from falsehood in principle. You first encounter these laws and phenomena in your study of chemistry and anatomy, zoology and botany. I advise you to lay the foundations well *there*, and by no means to lay the flattering unction to your souls that any of these are *useless* studies, because they seem not to be immediately *practical*. Apart from their manifold applications in practice, they are of untold value as a discipline. And, as I have insisted elsewhere, this discipline at an early stage of your medical career is of special importance, because it is of a kind almost overlooked in much of your earlier school education. What you learn in these scientific departments—always supposing that they are taught practically, and not *only* in books and lectures—is to come to a closer grip with Nature and with fact, and not to be deceived and deluded either with false shows or learned philosophies and philosophisings. And this is a kind of knowledge, *the knowledge of things as opposed to words and abstract ideas* (for so Michael Faraday called it), which is often greatly deficient even in educated minds, and the want of which is felt at every stage of a medical career. Let *thoroughness*, therefore, enter into all your dealings with these earlier studies—those of your first and second year. It is not merely that you are gaining *information*, but that you are *forming habits*.

Then, as regards the application of the habits so formed to your studies in medicine and surgery proper, I will ask you to-day to receive, and to ponder, only one or two suggestions from a teacher, some of whose early pupils are now grey-haired practitioners. I do not propose to speak of doctrinal instruction, the value or even the correctness of which depends largely on the teacher, but only of clinical instruction. In this, as in everything else, there is a right way and a wrong, and the difference between the two ways consists almost entirely in what I have called *thoroughness*. If you learn *thoroughly* to know even *one* case—diagnosis, prognosis, treatment, and all about it—in a humane as well as a scientific spirit, you may rest assured that you have got something which will remain with you all your life. If you learn, otherwise than thoroughly, to know after a fashion a great many cases, you have also got something that may remain with you as a life-long possession; but that something is simply a bad habit of working, while in the other case it is a good habit, and, over and above this, a valuable addition to your positive knowledge. I can remember now single cases seen by me forty years ago, and some of them are so printed in the memory that they have all the vividness, as well as the value to me, as though they were of yesterday. Now, I am going to say to you what may seem to be, but is not, a reflection upon particular teachers or pupils. There is a way of perking and pluming one's self upon a *diagnosis*, as who should say, "See how rapidly and surely I can do it; a single glance at the expression, a moment with the stethoscope, a word or two of conversation, and the thing is done, and the whole case is before my mind." This, according to my experience, is a very fatal bad habit, both for the teacher and the taught. No doubt rapidity of diagnosis comes with experience, and is not without a certain value; but in teaching, the first and the last lesson is always, or ought to be, *thoroughness;* and thoroughness, in the sense in which I am using the word now, is not consistent with aiming at these lightning-flashes of intuition. A true diagnosis risks nothing; it aims at being exact, not at all at being wonderful or rapid. Therefore it is never a thing to make a show of, or to boast one's self about; and he that does it in that boastful spirit is, in the very act of doing so, setting a bad example and teaching a bad habit.

What shall we say, then, of those out-patient rooms where twenty, thirty, or forty cases are disposed of in an hour, not only as to diagnosis, but also as to treatment? What, again, of those immensely busy practices where the mere multitude of the cases, or the distances to be traversed, make it well-nigh impossible ever to *complete* a diagnosis? Can these be considered as fit fields for gathering sound clinical instruction, or for maturing the crude experience of young aspirants whose chief desire is, according to the programme I mentioned a little while ago, to have personally seen and treated almost every common form of disease? I do not stop, as you will observe, to argue out these questions, for I have no time to do so; but I state, without the slightest hesitation, my own sincere conviction that for sound clinical teaching and for the formation of correct ways of observing, and thinking about, and treating disease—such habits, in short, as will be serviceable for a lifetime—the first and absolute rule is *thoroughness;* there must be no hurry. An hour, or even more, spent over one case (always supposing that the state of the patient admits of this) is out of all calculation more valuable than five minutes each over twelve cases, or even ten minutes each over six cases. And therefore I say again that the maxim which should guide our superiors in laying down the law of practical instruction is *Non multa sed multum;* not a great multitude of cases just seen, or very superficially observed, but a smaller or much more moderate number, the deliberate and careful observation and management of which in detail may form, as Tennyson sings, the stepping-stones on which to rise to the higher levels of a more rare, or a more difficult, or a more advanced experience.

Gentlemen, I have done. I had a good deal more that I should have liked to say to you, but the lapse of time warns me that there will be some of you at least waiting anxiously for the end of my sermon. It now only remains for me, as an outsider, to wish you all possible success and all possible happiness and efficiency in the studies of this medical school during the present session. I have endeavoured to indicate to you only the broad lines on which such success and such efficiency are to be sought. It is for you, so far as lies in you, to make the application.

God bless you all! Farewell!

ON THE DIAGNOSIS AND TREATMENT OF SCROFULOUS GLANDS.

BY W. KNIGHT TREVES, F.R.C.S.,
SURGEON TO THE ROYAL NATIONAL HOSPITAL FOR SCROFULA.

(*Concluded from page 634.*)

THE first indication in local treatment is to remove all sources of irritation. Excise the tonsils if enlarged, extract decayed teeth, treat adenoid growths, and try to cure post-nasal or pharyngeal catarrh; in short, if the glands are in the neck, try to get the mouth in a healthy condition and follow the same line of treatment elsewhere.

Local treatment to be successful must be thorough; it is a mistake to meddle with scrofulous glands unless one can get the whole thing away. I am very averse to partial operations; they often set up fresh irritation, arouse slumbering glands to renewed activity, induce increased peri-adenitis, cause fresh healthy glands to enlarge, and in fact leave the patient with a larger swelling and in a worse condition than before he was touched. If I am right in believing that the removal should be thorough, I would ask, "Can anything effect this complete removal except the knife?" I think not; the scoop certainly cannot do so; one constantly finds masses of deposit in glands which are quite hard and cannot by any force be scooped. It may be said, wait till the gland softens, but glands do not always soften, even when they are the seat of deposit, and may remain in the same chronic indurated condition for years. When the deposit does soften, the process is not generally uniform throughout the gland or glands. The softening takes place in separate glands or in patches of the same gland at various periods and at a certain stage of disease in each particular instance. It is not uniform throughout, either as regards individual glands or as regards the mass generally. If the surgeon could find and scoop out these broken-down portions, the patient would be no better off; the remainder of the affected gland or glands would still degenerate and cause trouble. Scooping alone is chiefly applicable to two conditions of the disease—viz., limited superficial gland enlargements which have uniformly softened, and old fistulous tracts kept open by withered caseated glands; it is also useful for scraping away rotten skin, old inflammatory deposits, and for clearing up generally. In the first of these conditions I am not of opinion that scooping is the best plan, as it leaves an abscess cavity which complete or partial excision would avoid. In large masses of scrofulous glands scooping alone would simply hasten the patient's end; these cases must be either excised or left to nature. I have heard and read scooping and excision compared, as if a given case should be treated exclusively by one method or the other. Practically this is not so; the surgeon has to remove all the diseased glands in whatever stage they may happen to be; some glands will be found too hard to scoop, others too soft and broken down to excise; therefore the operator must deal with the glands as he finds them, scrape some and excise others, the only *sine quâ non* being that he should clear away all the disease and leave no lumps to be felt when he has finished. I sometimes use the scoop alone, more often no instrument but the knife; a combined method of excision and scooping is, however, more generally useful than either method by itself. The skin incisions should be free and generally over the mass. If the glands are loose and can readily be shifted so as to be brought into view, one may make the skin cuts in the line of the creases of the neck; if the glands are under the sterno-mastoid, the incision should be along the line of this muscle, either in front or behind, or if the mass be very adherent to the vessels it will require two incisions in this line, one in front of the muscle and one behind. The advantages of a free skin incision are obvious: the surgeon can see what he is about, can more readily remove the whole of the disease, can satisfactorily arrest all hæmorrhage, and, finally, has good means of drainage when he has finished. Nothing is more dangerous than trying to extract glands from the neck through an insufficient opening, and it is a mistake to deal with glands through a small hole. The method of operating in cases where the glands are very adherent I have indicated in a former paper. Some glands are so loose that they can be hooked out by the finger; others can be removed by incising the capsule, some by a moderate dissection, while others will require the very closest dissection. If the surgeon has to dissect, he should always cut *on* the gland. In this way only will he avoid bleeding and wounding important structures. The gland itself is not vascular, the surrounding cellular tissue is very much so. In dissecting, the gland should be *fixed* either by the fingers, a hook, or a thread passed through it; it is not a good plan to dissect a gland which is at the same time slipping and bobbing about. When a solid caseous mass of glands is firmly adherent to the vessels, it is not judicious to try and dissect it off clean; clear as much of the mass as you safely can; slice off the greater portion, and with the fingers or scoop slowly and carefully scrape or peel off the rest. It is surprising what patience and perseverance will do with an apparently hopeless mass, and I have not yet come across a mass of glands that could not be removed—one side of a neck will sometimes take two hours. There is no vascularity in old glands. Inaccessible glands, such as those above the angle of the jaw, may have their capsules freely divided, their contents are as far as possible scraped out, and the capsules gently pulled away with forceps. After removal, resist the temptation to sew up the skin flaps, except in especially favourable cases in which the knife alone has been used. In the neck, more than anywhere else, bagging or retention means serious trouble. Adapt the flaps with the fingers and keep them in position by a sponge or antiseptic wool, which is included in the dressing. I do not, as a rule, use tubes. Absolute rest must follow, no mastication, and the head fixed by sand-bags. As regards scooping, if a gland is scooped, do not be in a hurry to allow the skin wound to close, however perfectly the gland may have been scraped and evacuated; particles of deposit remain behind, or a bit of gland may not have softened sufficiently to enable it to be scooped out. As long as any induration is left, it is well to keep the tube in or the wound open, and there should always be direct and easy communication between the skin opening and the remains of the gland trouble. In combined operations of cutting and scooping, the more the knife is used and the less the scoop the better; the knife causes less bruising, leaves nothing behind, and gives the best result.

Disorganised and unhealthy skin.—If the skin is blue, sodden, undermined, and thin, it is better to cut or scrape it away. Scraping is a test; if it is soft enough to scrape away it is of no use. It is a mistake to leave unhealthy skin under the notion that it will recover, and thus, by rendering a smaller wound necessary, diminish scarring. This is not found to be the case, and some of the puckering one often sees is due to the contraction which takes place during the process of healing in this damaged skin. Nothing but healthy tissue should be left behind, when the wound will heal quicker and leave a better scar.

In dealing with scrofulous glands the matter of scarring is worthy of consideration. Why do some cases show such terrible scars? Are the nature, appearance, and character of the scar dependent on the method which has been adopted for getting rid of the disease? Is it, if bad, due to the fact that the gland has been incised, allowed to break, poulticed, painted with iodine, scooped out, or treated in any other manner? Is a bad scar owing to the injurious influence on the healing process of the scrofulous constitution? I believe that a bad scar is not essentially dependent on one or any of these influences, but that it is generally entirely due to the simple fact that some source of irritation remains behind; that all the disease has not been removed that remains of thickened capsules, gland débris, or small infected glands are left. Nature shows her objection to this, and indicates her desire to get rid of it by a prominent, red, and ugly scar. I have seen glands excised, union by first intention with an almost imperceptible line, and subsequently this line widen. thicken, and become raised and red because other glands scarcely to be felt at the time of operation, and considered too small to need removal, have kept up irritation. On the other hand, I have often had cases in which, from destruction of skin, wide, irregular wounds were necessarily left after operation, recover with a flat, white, improving scar when the removal of the disease has been complete. If every portion of diseased gland tissue has been removed, and if there is no further infection or return after the operation, the scar will be an improving one as time goes on, but if any disease remains or returns the scar will continue to grow worse. A prognosis may to a

great extent be formed as to the probability of return of the disease in other glands, or the increase or subsidence of small deep glands that may have been left by the condition and progress of the scar. Ugly scars may be removed and the patient's appearance greatly improved, but the cause must at the same time be taken away or the result will be disappointing. The question of early or late removal is a very important one, and can only be answered by the consideration of the special features of each particular case. As a rule, there are decided advantages attending early removal. In the early stages the glands are as a rule more movable and more easily taken away; there is also to be borne in mind, as indicating early removal, the important fact that an infected gland constantly tends to infect others, and is a source of danger so long as it remains; glands too, if left, will often break down, capsule giving way, and discharge, not externally through the skin, but into the cellular tissue of the neck, causing burrowing sinuses and extension generally of the disease. On the other hand, removal whilst the disease is in an early and progressive stage is more likely to be followed by a return than is removal when the disease is in an arrested and quiescent condition. And, *cæteris paribus*, the younger the child the more likely is the disease to recur. No general rule can be given, but each case must be taken on its merits. If the constitutional disturbance set up by the glands is sufficient to maintain increase of temperature, it is better to operate. Of course, the constitutional condition and the local trouble act and react on each other, but generally an indication for action or delay can be got at by deciding as to whether it is chiefly the constitutional condition which, in addition to perhaps local causes, is developing and maintaining the gland trouble; or whether this gland disease, having been started by combined local and constitutional causes, is now in itself injuriously affecting and deteriorating the health. In many of my patients the latter has undoubtedly been the case, and I have numerous charts showing the temperature, which has ranged from 100° to 103° F., dropping to normal shortly after removal, with a corresponding improvement in the general health. But in many cases there are distinct benefits to be obtained by waiting. The glands will not altogether return to their normal condition and size, but they may become smaller, surrounding inflammatory deposits may be absorbed, adhesions may be set free, loosened, or stretched, general health may be improved, and a more favourable state of the patient, both locally and generally, be brought about. The social position of the patient must also influence our action. In the case of a poor child, residence at the seaside, except for a limited period in a hospital, is unattainable, and time is of importance. The well-to-do classes, on the other hand, are averse to submit to operation until less decisive measures have been first tried. Finally, I would say wait, if possible, to establish general health and get disease quiet.

I cannot help thinking that excision of scrofulous glands is an operation which rests on sound surgical principles. We have a diseased, an irreparably diseased, condition in organs which the body can well spare—a condition which tends constantly to cause infection by continuity of adjoining glands, and even by means of the blood, to develop tuberculous disease in distant parts. Why should this diseased product be allowed to remain to work its own sweet will unmolested and undisturbed? Tuberculous disease is removed from all other accessible parts or organs; why should glands be privileged? I submit there is every reason why they should be removed, and removed thoroughly. Take the case of a family of scrofulous tendencies. One member only may actually develop the disease, say, in the form of scrofulous glands; if this child's diseased glands are thoroughly removed, if all sources of irritation are removed and the child's health established by being sent to the seaside, that child is put back in the position of his brothers and sisters who have never had the disease. He is not more likely to have a return of the scrofulous glands than his brothers and sisters are to develop them—in fact, he is cured. The only valid argument that could be used against the excision of scrofulous glands is the possibility of undue risk. Scrofulous glands are situated usually in the midst of important vessels and structures, and their removal might be considered dangerous. I can only state that I have excised scrofulous glands for many years, and that I have never lost a case. I attribute this success partly to good fortune, but mainly to the fact that I never incur, by premature closing of the wound, the slightest risk of retention of discharges or bagging. I have operated on many cases of great enlargement. I have removed more than a pound's weight in glands from one patient, and more than one hundred in number from another. I have excised glands in a case where the mass was sufficiently large to threaten suffocation. My colleagues are doing the same, and we can prove, by a great number of cases, that the operation is not attended with undue risk, and that the results are good.

Margate.

AROSA AS AN ALPINE HEALTH RESORT.[1]

BY WM. EWART, M.D., F.R.C.P.,

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AFTER five successive winter visits to the Alps, I am more than ever of opinion that time is working in favour of the Alpine treatment of phthisis. The natural repugnance of most patients to the idea of a glacial winter, and a wise diffidence on the part of the profession, have checked for a long time its wider application; but the delay has been of use as a means of testing its value and of confirming its ultimate success. We now more fully realise that, if phthisis is to be cured by residence in the Alps, the fleeting opportunity must be seized *early;* this circumstance alone has led, during the past few years, to a progressive increase in the size of the winter colony. Moreover, in addition to consumptives, many have found their way to the Alps in whom pulmonary disease was merely *threatened.* And, lastly, the remarkable results obtained in the treatment of early phthisis have awakened most physicians to the capabilities of the Alpine cure in a larger class of cases presenting in common the feature of depressed vitality. Nevertheless, for a considerable number of patients the length and the hardships of the journey to the high Alps have hitherto been an insuperable objection. The winter journey to the Engadine is likely for some years to retain its romantic and adventurous features. But to Davos a railway is already partly laid; this winter it will have reached Klosters, leaving but ninety minutes instead of seven weary hours of diligence journey; and in the following autumn Davos will possess its own terminus, and will doubtless welcome a vastly increased number of visitors, both invalid and healthy. From that day the charm of an Alpine winter holiday will cease to be the secret of the few; and it may safely be predicted that Davos will become the great centre in the High Alps, not for patients only, but for lovers of mountain climbing, of skating, and of the toboggan. On the other hand, instead of being as heretofore an *Ultima Thule*, Davos will henceforth provide ready access to other favoured spots, and residence in the altitudes will admit of greater variety than in the past. Foremost among the members of the Davos group of health resorts must be mentioned Wiesen and Arosa, each differing from the other and from Davos in its climatic virtues, and each excelling in its own special variety. Wiesen has already for several years subsisted as a satellite of Davos, but although it has been brought to notice by the writings of Dr. Tucker Wise, it has not yet achieved the development for which its beautiful climate, and its yet more beautiful scenery, afford secure pledges. Arosa, though later in the field, is likely to equal the fame of its predecessors. Hitherto, but for a paper by Dr. Fritz Egger in the *Correspondenz Blatt für Schweizer Aerzte* for 1886, it is unknown to medical literature. The brief account which follows may therefore present some interest, especially since, through the kindness of Dr. Egger and of Dr. Herwig (the former practising and the latter residing in Arosa), I am able to supplement my own observations with some of the local knowledge acquired by old residents.

Upwards of 400 years ago a handful of adventurous Davoser shepherds crossed the mountains which form the western boundary of the valley of Davos, and founded in the smaller and more elevated neighbouring valley a village, to which they gave the name of Erosen. The new

[1] Written at Arosa in February, and communicated in March of the present year.

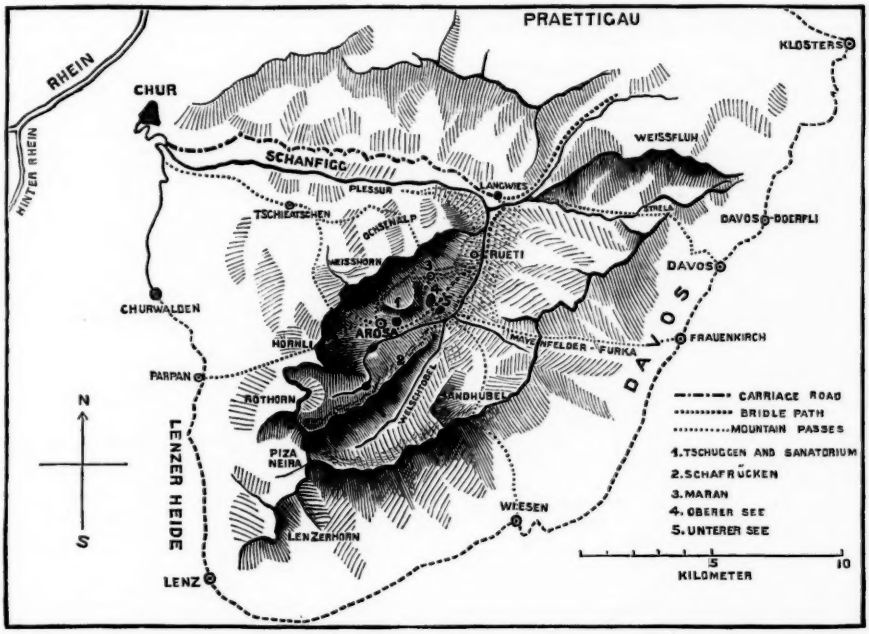
settlement remained for a long period within the jurisdiction of Davos; and to the present day a vestige of the former allegiance survives in connexion with the administration of relief to the poor. The colony never acquired any great size; but with the ill-advised sale to the city of Chur of the richest of its woods and of its grazing-alps, it entered upon a long period of decline. Two years ago its permanent population had dwindled to fifty. But Arosa was destined to be colonised once more from Davos, not as formerly with sturdy mountaineers attracted by the fragrance of its pastures, but with patients anxious for a winter shelter under its snow-clad mountains. The fresh immigration was headed, six years ago, by Dr. Herwig, and two years later by Dr. Egger. During the winter 1887–8, in scattered array, a total of eleven visitors were content to put up with primitive accommodation. But, with the onset of the next winter, Arosa, long treasured by the Swiss as a delightful summer refuge, almost untrodden by the foreign tourist, long foretold by experts as the winter station of the future, suddenly sprang into existence as an Alpine health resort. The sanatorium, built by Dr. Herwig during the spring and summer of 1888 for the accommodation of thirty patients, was invaded, even before its completion, by visitors unable to find room in any of the six summer hotels; and during its first winter it has been occupied by twenty-four residents. The patients, mostly German, but including two English ladies, a Belgian, and, strange to say, a Frenchman, have enjoyed the undivided run of this lovely valley, free to toboggan down its long slopes, free to roam on snow-shoes, fearless of the *landjäger*, over its hills, meadows and hurdles, and to exchange distant *jodels* through stillness yet undisturbed by any strange voices; but at times the saddening thought has occurred to them that the same monopoly of privileges will never be theirs again.

The natural advantages of the valley of Arosa are probably unsurpassed. An oblong amphitheatre of mountains surrounds the valley on all sides, except at the north-east corner where the Plessur stream escapes with a sharp bend, between densely wooded hills, into the Schanfigg Thal. This break in the investing heights is guarded by the Weissfluhe; and from this mountain to the Piza Neira a continuous chain separates the Prättigau and the Davos Valley from the district of Arosa. Between the latter and Wiesen intervene the Sandhübel Mountain, the gorge of the Welschtobel and the ridge of the Schafsrücken. The higher or southern part of the valley is included between this ridge and the Weisshorn; whilst into the northern half opens the Welschtobel. The valley is parallel with the valley of Davos and slopes from S.W. to N.E. Its shape would be a perfect oval but for the protrusion, half-way across it, of a small semicircular mountain, the Tschuggen, which renders it roughly kidney-shaped, and divides it into a northern and a southern half. The latter contains, in descending tiers, the elevated Aelpli-see; the Schwelli-see, also of considerable altitude; and the hamlet of Arosa. This is, strictly speaking, the Arosa Valley as opposed to the See-grube on the other side of the Tschuggen. The complete absence of trees and the huge snow-slopes into which it gradually rises impart in winter to this end of the valley a wild arctic aspect.

The sanatorium is built half-way down the southward slope of the Tschuggen, at an elevation of about 6200 ft., near the upper limit of the pine-tree woods, which extend from this point northwards as far as the end of the valley, clothing its bottom and its opposite slopes, and leaving in the See-grube an open surface of tolerably level ground around the two lakes, known as the Unter-see and the Ober-see. The sanatorium, absolutely sheltered from the north wind, is open to the Föhn, which seldom blows, and is taken in flank by the milder touch of the Heiterluft (fine weather air) or west valley wind, which descends every day, across Arosa, from the Hörnli. It faces due south, and receives, in addition to the direct sun rays, much reflected heat from the snow-clad Schafsrücken; it also enjoys a fine view over the picturesque snow-tipped woodland scenery to the north, which contrasts pleasantly with the desolate landscape to the south. From the narrow gully contained between the foot of the Tschuggen and that of the Schafsrücken the valley broadens out northwards into the See-grube, which has a mean elevation of 5800 feet. Here the protection from wind, although not absolute, is as good as need be desired, and I am told by winter residents that during the heavy Föhn-storms the woods afforded a perfectly

MAP OF AROSA,

WITH AN INDICATION OF ITS RELATIONS TO THE DAVOS GROUP.



N.B. The scale of measurement is applicable only to the Valley of Arosa, not to the surroundings, which are merely indicated, without reference to distance.

still retreat. On the shores of the Ober-see and of the Unter-see I noticed lovely sites, two of which are already reserved for large buildings. Hitherto valley mists, so common in the still valleys, are almost unknown, even in the See-grube.

Arosa offers ample opportunities for out-door *exercise*. A long level walk extends through the woods to Maran; the other walks are more or less steep, and their choice is limited in winter. Fortunately snow-shoes, almost unknown at Davos and St. Moritz, are here in constant use and have rendered the patients independent of the few bridle-paths with which the natives are satisfied. With their help some of the stronger invalids have ascended the Weisshorn, and even the Rothhorn, and have visited most of the passes. The hill sides are singularly well adapted for the use of the toboggan, and some excellent skating was enjoyed on the lower lakes before the heavy snow-falls. Meanwhile, patients unfit for exercise recline in the sun under rugs or eider-down pillows on the balconies or in the verandah.

The meteorological observations which have hitherto been collected entirely confirm the inference that Arosa is typically a serene altitude. Absolute stillness, which is not an unmixed boon, does not exist here. The *Heiterluft* provides daily for a sufficient renewal of air, and the See-grube possesses an additional air-current passing from the valley of Langwies to the Welschtobel. As to the quality of the air, after a circular journey from Davos to the Engadine, and from the Engadine to Arosa, I found here rather more stimulation than at Davos, and decidedly less stimulation than in the Engadine. As far as I was able to compare notes, the oscillations of the weather were practically the same here during the month of February as at Davos. Although a thousand feet higher than Davos, Arosa possesses a milder temperature. The following fact requires no comment: mid-day dinner was served to the patients in the open verandah seven times in December last, eleven times in January, and twice in February. According to observations made by Mr. P. Haenel, and kindly placed by him at my disposal, the interval between sunrise and sunset reached in December last a minimum of five hours and fifty-three minutes and a maximum of six hours and twenty minutes; for January the maximum was seven hours, and for February eight hours.

The following are the averages of the temperatures registered in the *shade* from Feb. 3rd to the 14th inclusive. Average at 7 A.M.: − 11·7° centigrade; at 1 P.M.: − 7·7°; at 9 P.M.: − 10·3°. An ordinary thermometer, suspended in contact with a wooden beam, on the *sunny* side of the sanatorium, registered the following values during the same series of twelve days, at 12 noon:

+12·5°; −2°; −3·5°; −2°; +22°; +31·5°; −1·5°; +2·7°; −2°; +1·5°; +20°; +3·5° centigrade.

The wide variations noticed in the series are evidence of the unsettled state of the atmosphere during the period in question, widely contrasting with the steady fine weather which prevailed throughout November, December, and January in Davos and in Arosa. The highest temperature registered by the same instrument in December was +34·5° centigrade. The lowest temperature registered in the shade (at 7 A.M. and at 9 P.M.) was −20° centigrade. Although these various observations were not made with protected thermometers, they afford a rough idea of the variations in temperature to which are exposed winter residents in the altitudes, and which the dryness of the air enables them to tolerate without discomfort.

In conclusion, Arosa, the latest addition to the list of Alpine resorts, bids fair to be one of the best; and we may well wonder that so eligible a spot should have been hitherto overlooked. The mountains by which it is so remarkably sheltered have placed it beyond the reach of most invalids. To the present day, Arosa possesses the charm of being accessible only to foot passengers; in winter, by a single path, from Langwies, a stiff walk of from two hours and a half to three hours; but in summer by six mountain passes in addition. A carriage road is, however, in course of construction, and before next winter it will be possible to cover the whole distance from Chur in four hours and a half. Perhaps also before then ample accommodation will have been prepared for a larger winter colony. As regards the sanatorium, the success already achieved among a German *clientèle*, under the able management of Frl. Herwig, renders it more than doubtful whether any room will be left next winter under its roof for the reception of English visitors. But if any should make the attempt to partake of its hospitality, they should come prepared to find themselves in the minority.

Curzon-street, W.

AN ESSAY ON THE

FUNCTIONS OF INDIFFERENT CELLS IN THE HUMAN ORGANISM.

BY JAMES DICKINSON.

(Concluded from page 636.)

THE normal occurrence of the migration of leucocytes must be considered as established. What do they do when they have migrated? Is there in the body any small but constant deposit of cell débris (such as results copiously from an injury) demanding bodily removal, and providing just such a task as the wandering cells in the tissues are competent to perform? It seems extremely likely that there is this deposit. The life of a cell is not in point of duration that of the organism of which it is but a tiny item. It is believed that each cell lives its little life and dies while the complex organism continues its existence. The analogy of all communities tells us that this must be so, and that it is so is recognised by authorities. "We know that an epithelium cell, as notably in the case of the skin, may be bodily cast off and its place filled by a new cell, and probably a similar disappearance and renewal of histological units take place in all tissues of the body to a variable extent." (Foster.) Again: "The tissues and organs of the animal body in the exercise of their functions are subject to loss of material which is restored by nutrition." (Quain's Anatomy.) Every surface yields us abundant material evidence that this proposition is true, and we need not hesitate to accept it. Let us, then, ask the question, What becomes of the dead cell-forms? It would require but a very minute percentage of deaths per diem to scatter some thousands of dead cells about the body daily. Such as die at the surface are free to return straightway to the dust whence they sprang. But the bulk of cells are cut off from this easy mode of disposal. What becomes of them? The authority last quoted says: "In the vascular tissues the old or effete matter must be first reduced to a liquid state, then find its way into the bloodvessels or lymphatics along with the residual part of the nutritive plasma and be by them carried off." No doubt this statement partially disposes of the difficulty, but it takes too much for granted to be accepted without challenge. Leaving out of count the products discharged by katabolism while it maintains the limits consistent with the life of the protoplasmic molecule, the expression "old or effete matter" includes the products left when protoplasm undergoes death and dissolution—products which, as we have seen, must be constantly deposited in the tissue. Now, in the statement just quoted all these products are assumed to be soluble in the lymph stream. But one of the products freed by the natural dissolution of protoplasm is fat, as is seen when a mass of protoplasm cut off from its blood-supply undergoes fatty degeneration. What happens is broadly this. The complex molecule of protoplasm, in the absence of material wherewith to carry on its constructive changes, continues its destructive changes uncompensated till it is fairly broken up into less complicated but more stable molecules, some of which are fatty. We see the same thing in the tissue degenerations of old age, when the machine is nearly run down and destructive metabolism generally is gaining the upper hand of constructive. It is by so carrying its destructive metabolism too far that one conceives all protoplasm ultimately dies, if left to die in the course of nature, a point being at last reached at which no reconstruction is possible and the molecule breaks up into stable residues. It is most probable that all forms of the protoplastic molecule contain, in addition to a proteid basis, fatty and carbohydrate residues. The combination may be in different proportions in different forms, but probably all forms on undergoing natural dissolution yield residues representing these three classes of substances. At all events the facts shew that a fatty residue is almost invariably a product of

this dissolution. Some forms of protoplasm by natural dissolution yield it in considerable quantity. Nerve tissue especially leaves an abundant fatty residue. Native protoplasm is also highly productive of the same substance, as is seen in a caseating abscess when migrated leucocytes are dying of starvation. Muscle and gland protoplasm leave no inconsiderable fatty residue. But fat is in water the fluid basis of lymph, an eminently insoluble substance. A view that requires all effete products to undergo solution before they can be removed is therefore inadequate to account for the disposal of at least one of those effete products. But this view undoubtedly affords a partial explanation of the means whereby disintegrated protoplasm is removed from the tissues. We know that there are found in all tissues certain nitrogenous crystalline bodies, amongst which kreatin is the most conspicuous. Since they are such bodies as would readily be carried away by the lymph-stream, yet are always present, we infer that they are constantly being formed and as constantly being converted into other bodies and carried away (Foster). These bodies have been called the "wear and tear" products of metabolism. But in the metabolism of protoplasm two processes must be distinguished—*change*, which is anabolism and katabolism within the limits of life, and *death*, which is katabolism beyond recovery. It is probable that the former process gives rise to little or no nitrogenous waste, and it is the latter process to which we must look as the chief source of extractives. In fact, of the three residues which I venture to assume are liberated by the final katabolism of protoplasm, extractives represent the proteid residue. These substances are no doubt taken up by the lymph-stream in which they lie, and so find their way through the lymphatic channels to the blood, and thus to the nitrogen-excreting organs. If any portions are yet available as nutriment, they would take their place among the other foods held in the plasma. But just as constantly as extractives there are found in all tissues—leaving out of count those in which they are special features—substances belonging to the two classes, fats and carbohydrates. This is what we should expect in the light of the foregoing considerations, and the obvious conclusion is that these substances have a source identical with that of the extractives, and that all three represent residues left by that final splitting up which ends the katabolism of the molecule of protoplasm. The carbohydrate residue takes the form of glycogen. Neither fat nor glycogen can be said to be substances which would readily be taken up by the lymph-stream. Glycogen, indeed, is just that less soluble form which carbohydrate assumes (e.g., in the liver) in order, probably, that it may *not* be carried off by the lymph-stream. But if the view be correct that fat and glycogen are constantly though in small quantities deposited in the tissues by the natural death of cells, and if the lymph-stream is inadequate to the effectual removal of such substances, must there not exist some other agency by means of which they may be constantly swept from the tissues and prevented from accumulating? Does not this look like a need such as leucocytes are just qualified to supply—a need more diffused and less intense, but of precisely the same nature as the need we found them supplying in inflammation?

It is established that the migration of leucocytes from the bloodvessels into the tissues is a normal occurrence. It has been shown that it is at least highly probable that there is work for them to perform in the tissues such as is within their powers, and such as we have seen them performing under certain conditions. Have we any certain evidence that they do perform this work? We have. The microscope shows that the protoplasm of leucocytes has always embedded in it granules of various sizes, which irresistibly suggest themselves as prizes picked up and undergoing the process of intracellular digestion. It is, indeed, the presence of these granules that enables observers to distinguish leucocytes among other cells. But what seems to finally establish the soundness of the considerations above given is the fact that most authorities describe these particles as consisting of fat and of glycogen. This is just what, on the foregoing grounds, we should prophesy, and what we should look for with trepidation as a crucial test.

To sum up the results so far obtained. Inflammation, then, is a process to which, in a very mild form, the whole body is subject all its life. It is a cleaning-up process. Leucocytes are the scavengers of the body. Just as their structure and organisation are on the lowliest type, so the work they do is the most menial, though of utmost moment to the body at large. The primitive freedom which they alone retain is, naturally enough, the very thing that makes them of use to their fellows in the community that have resigned it in pursuit of special powers. With all their freedom their life is not their own, but belongs to their community. Their voracious and indiscriminate appetites are utilised in the plan of the body to supply important needs. In the alimentary and respiratory tracts there are special needs which leucocytes supply. Throughout the body is probably a constant and general need of their services as scavengers, a need created by the natural death of individual cells. Among the products of this death is a nitrogenous residue which is removed mainly, perhaps wholly, without their help. But there are also fatty and carbohydrate residues, and leucocytes are concerned in the removal of these. In effecting this removal, they utilise as nutriment all that is yet available of the débris. The tissues are held in constant survey by a procession of leucocytes which are distributed by the bloodvessels, escape thence through the walls, and, traversing the interstices of the tissues, stray ultimately into the proper lymphatic channels, where we will follow them for the present only as far as the first lymphatic gland they chance to meet. Ordinarily the escape from the bloodvessels is not a conspicuous event, but in cases of urgent need it is favoured by some change in the wall which has been called "molecular." Into the blood-channels fresh relays are poured from the lymphatics through the communication in the neck—continuously poured, but with especial vigour during the time absorption at the lacteals is most active. Thus, leucocytes being necessary to all parts of the body, follow precisely the course of circulation taken by the nutritive plasma.

But the physiology of indifferent cells in the human body is not yet fully outlined, for the question next arises, What is the function of the so-called lymphatic glands, which consist chiefly of amœboid elements? Keeping in mind the work of sweeping all débris from the body, it is not difficult to discover a probable use for these organs. For though the sluggish lymph-stream is obviously inadequate to sweep through the interstices of the tissues particles such as are seen in the bodies of leucocytes, it is quite conceivable that particles in a more minute state of division might be so carried off, suspended, without being in solution. Moreover, it seems not unlikely that in the breaking down of a cell structure a fine detritus would be loosened into the plasma. Grant that this be so. Then if it go on unchecked it must end in completely vitiating the plasma as a means of nourishment. It would in fact go on accumulating till it choked the vessels. For no cells could deal with it except such as retain to some extent the amœboid power. The use of the amœboid power is to enable a cell to pick up particles. If it is to become a highly specialised cell, the necessity of picking up food by its own activity must be obviated by its being provided with food in a soluble form. It cannot give up its amœboid powers unless this difficulty be arranged for it. And so we find it in the body where the bulk of cells take up their food or whatever products their functions are concerned with, in a form the assimilation of which calls for no more than a chemically selective action on their part. Leucocytes and some other cells that possess limited amœboid powers are the striking exceptions. Thus we never find particles in a muscle cell unless they be the products of its own degeneration. Supposing, then, a fine detritus to be constantly discharged into the plasma, it would, unless it were removed by special means, go on accumulating, and work two disastrous effects. It would, in the first place, displace useful (because soluble) nutriment; and, in the second place, it would render the flow of plasma through the tissues increasingly sluggish. Starvation of all highly specialised cells would be the climax. Obviously the efficiency of the plasma as a supplier of nourishment to the tissues depends, for one thing, on its being kept clear of suspended matter. The clearer it is the more freely will it permeate the tissues and penetrate into the protoplasm of the cells. If, as seems likely, there is a constant discharge of fine detritus into the plasma, there must be some efficient filtering apparatus constantly at work to clear it away. There are organs which filter the

blood in a chemical sense, but none have yet been recognised as engaged in a mechanical filtration of suspended particles from either blood or lymph. Yet a lymphatic gland is constructed so as to suggest a filtering apparatus. It may be briefly and diagrammatically described as a dilatation in the course of a lymphatic channel occupied by a fine reticulum, the meshes of which serve to support a loose crowd of leucocytes. The leucocytes, loose only in the sense that they are free, are crowded densely, and through the crowd all lymph has to flow in order to pass from the afferent to the efferent vessel. It would be a miracle if the minutest particle of suspended matter brought by the afferent ever reached the efferent vessel through such a phalanx of phagocytes. The apparatus is calculated to maintain the most rigorous filtration, and probably all lymph on its way from the tissues has to pass through one or more such organs before it is redistributed by the blood-channels. If lymphatic glands have the function here suggested their work is complemental to that of the isolated errant cells that scour the body, and pick up all débris that is too bulky to be carried away by the plasma. We see how naturally errant leucocytes brought by the afferent vessel would take their place among those entangled in the meshes of the reticulum, to join in a work which is but a continuation of their own. We see how other leucocytes would escape on the efferent side of the gland with the lymph, to be carried a stage nearer the portal through which they would ultimately be admitted into the blood-stream; here to begin a new phase of existence as independent leucocytes till brought round once more to the afferent side of the lymphatic gland system. It must be added that lymphatic glands are probably among the chief seats of reproduction of leucocytes, the comparatively inactive life leucocytes lead in these situations being most favourable to that function.

There still remain for consideration certain aggregations of amœboid cells that cannot be classed either with lymphatic glands proper or with those lymphatic masses which, distributed along the respiratory and alimentary tracts, guard the natural gateways of the body. I refer to those aggregations of amœboid cells seen in the spleen and in the red marrow of bone. There can be no manner of doubt that the functions of both these tissues have relation to the red corpuscles. For just as lymph—i.e., plasma without red corpuscles—is discharged freely into the substance of lymphatic glands, so blood—i.e., plasma *plus* red corpuscles—is discharged freely into the substance of the spleen and of the red marrow. By contrast of these relations the inference arises that the spleen and marrow concern themselves with precisely that element that makes the difference between lymph and blood. Observation amply confirms this *a priori* deduction, though we are at present unable to say positively whether the two tissues are identical, or, as seems more probable, complemental in function. Again, we should, on *a priori* grounds, look naturally to leucocytes to provide new red cells and to dispose of old ones, the former corresponding with their organising, the latter with their absorbing, powers. But the final word on this matter has yet to be said, and the exact relations of the spleen and red marrow to the red cells and to each other have yet to be worked out. The elements found in circulating blood that have been described as transitional between leucocytes and red cells are probably leucocytes that have taken into their bodies the disintegrated remains of red cells. Whether such leucocytes do afterwards undergo any transformation has yet to be determined. Lastly, as a function of leucocytes, reference must just be made to the power of organisation which they display under certain conditions. This function concerns chiefly the earliest stages of the organism's development, and in the fully developed organism falls naturally into abeyance until a need for it arises in the shape of destruction of tissue.

Such are the functions of indifferent cells in the human body. These elements can no longer be looked upon as insignificant and useless or harmful. When it is remembered that their functions serve such varied uses as food absorption, antiseptic protection, regeneration, and, most menial, but not least important, the sweeping up of débris, it must be admitted that they are as indispensable to the well-being and continuance of the organism as are the elements of any tissue that has received distinct recognition.

Bridge-road, N.W.

TWO CASES OF

NECROSIS OF THE ALVEOLAR PROCESSES FOLLOWING MEASLES.

BY R. CLEMENT LUCAS, B.S. LOND., F.R.C.S.,
SURGEON TO GUY'S HOSPITAL AND TO THE EVELINA HOSPITAL FOR CHILDREN.

THE cases of acute disease which are treated by physicians not unfrequently leave local weaknesses and degenerate tendencies, which fall, perhaps months afterwards, to the charge of the surgeon. These local affections may in many cases be regarded as direct sequelæ of the acute disease, and particular exanthemata seem prone to produce necrosis in particular situations. The rib necrosis and tibial nodes which may follow typhoid fever are not, so far as I am aware, often found as a result of measles or scarlet fever, nor do I know of any case of typhoid fever which resulted in exfoliation of the alveolar processes of the jaws. The following two cases of alveolar necrosis presenting characters so very similar and resulting in each case from the same cause, I have thought well to place on record together. It is curious also that the two children were of the same age.

J. B——, aged three, was admitted into Guy's Hospital, under my care, on July 31st, 1889, and the report is from notes taken by Mr. Sydney T. Roberts. There was a healthy family history. Five weeks before admission the child suffered from measles and inflammation of the lungs. He was much convulsed during the attack. The illness lasted about a fortnight, but the mother noticed after his recovery that there was something wrong about his mouth. When admitted the child had a fairly healthy appearance. There was a little breaking out about his lips, his mouth was very foul, and the breath extremely fetid. On the front of both the upper and lower maxillæ, and limited to the anterior or central parts of both alveoli, was a greenish-black portion of necrosed bone. That on the upper jaw was quite loose, whilst that on the lower appeared still firmly attached. The disease appeared confined to the alveolar processes. The four incisor teeth had dropped out from the necrosed process of the upper jaw. In the lower jaw the necrosis, besides involving all the incisor sockets, included those of the two canines. On July 2nd, the patient being placed under chloroform, I removed with forceps the necrosed portion of the upper jaw. It came away with great ease. There was more difficulty with the alveolus of the lower jaw, and it became necessary to use a stronger forceps. The piece removed from the upper jaw was nearly quadrilateral, measuring three-quarters of an inch both vertically and transversely, and it contained the sockets of the four incisor teeth. The portion removed from the lower jaw was rather larger. It contained all the incisor sockets, together with half the socket of the canine tooth of the right side, and the whole socket of the corresponding tooth on the left side. The mouth was well washed out with Condy's fluid, and iodoform applied. On July 3rd the patient's mouth was in a much healthier condition, and the fetor much diminished. On the 5th the patient's general health was improved, and the condition of the mouth much sweeter. On the 7th the patient was discharged convalescent.

The second case I take from my Evelina Hospital notes. It is also a case of necrosis of both alveolar processes following measles, but the destruction was of an even more extensive character. By a curious coincidence the initials of the two children are the same, a fact which I mention lest it should be thought there was any confusion in the cases, but the sexes are different.

J. B——, aged three, was brought to the Evelina Hospital on Feb. 28th, 1883. The mother had died of some throat affection eighteen months before. The child took measles in August, 1882, and was ill for six weeks. After this it was noticed that her breath became very offensive. Shortly before being brought to the hospital the alveolar process of the upper jaw, corresponding to the four incisor teeth, dropped out. It was at the same time noticed that the alveolar process of the lower jaw was black and denuded of gum, whilst the breath remained very offensive. She was ordered a disinfectant lotion to rinse the mouth with, and cod-liver oil and steel wine internally. On March 7th, 1883, I removed with forceps the alveolar process of the lower jaw correspond-

ng to the four incisor sockets and the right canine, and afterwards the alveolar process of the upper jaw bearing the sockets of the molar teeth of the left side. The patient afterwards rapidly recovered, the gum surface granulating over.

It will be noticed that the necrosed portion of the upper jaw separated in each case earlier than that of the lower—a circumstance to be explained by the different texture of the two maxillæ, the lower being much stouter, heavier, and more compact.

Finsbury-square, E.C.

Abstracts
OF
INTRODUCTORY LECTURES ETC.
DELIVERED AT THE
MEDICAL SCHOOLS OF LONDON
AT THE
Opening of the Session 1889-90.

KING'S COLLEGE.

INTRODUCTORY ADDRESS BY SIR ALBERT ROLLIT.

SIR ALBERT ROLLIT said the further men receded from their own school days the greater was the interest they took in the education of others than themselves. He had, therefore, responded to the request of the Principal and Medical Board to distribute the prizes, which was easy, and to address the students, which was difficult, especially those students of whom Carlyle spoke when he said, "I never knew a really clever youth who came of entirely stupid people." Education in London was in a period of transition. The great questions of metropolitan university, higher technical, and commercial education were either in the furnace or upon the anvil of public discussion. All were agreed that the present condition of university matters in the metropolis was unsatisfactory and inadequate, and it was certain that very soon either the University of London must meet the requirements of students and their teachers, or that a new teaching university would be founded, with King's and University as its chief colleges. Moreover, the London M.D. degree had been, from a professional point of view, almost unattainable, and hence an exodus of students took place from London towards other universities. This seemed, indeed, to be a practical and admitted evil, and it would be necessary to place within more reasonable reach a degree which it was now the custom to seek, and which should certainly not be severed from the professional advantages of the metropolis. It was to be hoped, however, that the present honour of the London M.D. and M.B. degrees would not be lost to the profession or their standard unduly lowered; and he suggested that the difficulty might be met by conferring the Doctorate of Medicine, as at Bonn and some other foreign universities, not only as a pass degree, but also as an index of higher qualifications, either *cum laude* or *cum multâ laude*, which was equivalent to honours. And if the proper requirements of a teaching university should not be met by the University of London, and a new one should be founded, let them hope it would be a true University—a school of universal learning, not an institution bearing as its name any such contradiction in terms as the proposed medical or legal universities. For this would not only narrow the course of professional instruction, but introduce into this country the evils of educational competition based on lowered standards and requirements, and followed by diminished reputation—a danger not unlikely to arise from the multiplication of collegiate universities. Having spoken of the English hospital system, and contrasted it with that of other countries, and having referred to the public services of the medical profession, Sir Albert discussed the subject of professional education. Owing to the mass of modern knowledge, the industrial principle, which was being applied in King's College and elsewhere, must, he said, also be applied to those intended for professional pursuits. As there was to be training for trade, so must there be preparation for a profession. Valuable as was classical culture, German was both disciplinary and of service in science, and it was dawning upon men that it might be possible not to be able to set Latin verses and yet to set a leg. He made an urgent plea for the professional, and also the general, study of psychology. For want of this, men, as a rule, ate too much, drank too much, slept too much, and fed and clothed themselves without much regard to their wants. If more adopted Sydney Smith's own prescription, "We cultivate literature on a little oatmeal;" if some dyspeptics appreciated the value of fish on a Friday, and any other day, of exercise on most, and relaxation on some days, such a reasoned and reasonable self-regard, call it selfishness if they chose, would at least mitigate disease, reduce the death-rate by half, and extirpate very much of the sum of human misery. Instead of this, however, the constant cry was that of the impenitent offender, "Oh, Lord, convert me, but not to-day," and so, in dyspepsia, &c., man continued to reap the reward of a guilty stomach. Again, physic and physics were closely connected, both etymologically and practically, and the medical man should therefore be more familiar than some were with the resources of natural science, and of the great physical instruments. To help nature, men must first know nature; otherwise they trust to chance and luck, and call it nature. He was glad, therefore, that physiological physics were prominently taugh at King's College, and a frequent educational defect thus remedied. But, after early education came the lifetime, and their profession offered perhaps the most noble of all careers; while what had been accomplished gave assurance of what was still to do. The world owed to the profession conservative surgery, the antiseptic principle, anæsthetics, and other life and limb saving inventions. The treatment of the insane had also been modified under the influence of such chairs as that of Psychological Medicine, while in the wide field of preventive medicine the labours of the profession had narrowed the kingdom of disease and death. But still the waste of human life was discreditably great, and in the national and civic duty of its reduction theirs would be the most powerful of all help towards that goal of health which society ought to seek and reach. This crusade was for Christ and His people, and the performance of public duty was the chivalry of to-day.

ST. MARY'S HOSPITAL.

INTRODUCTORY LECTURE BY DR. ROBERT MAGUIRE.

Protective Inoculation.

THE *rationale* of Protective Inoculation has been worked out only during the last ten years. In 1700 inoculation for small-pox was practised in Constantinople, and was introduced into England by Lady Mary Wortley Montagu. In 1768 Jenner began his researches on the protection afforded by cow-pox against small-pox. Possibly this was an instance of attenuation of virus by passage through animals of a different species. The more exact investigation commenced with the work of Pasteur on chicken cholera. The germ of this disease had already been discovered, but its relation to the disorder had not been fully worked out. To prove such a relationship it is necessary to show the constant presence of the germ in the subjects of the disease, to isolate the germ from its surroundings by cultivation upon suitable nutrient media, and finally to reproduce the disease by inoculating with such cultivations. The latter proof is wanting in the case of many germs because the lower animals are not always subject to the diseases of man, and the germ disease is too dangerous for an observer to submit himself to experiment. Pasteur applied all these methods to the germ of chicken cholera, and rendered certain its connexion with the disease. Methods of disinfection were then successfully practised, but these did not suffice to prevent further outbreaks of the disease. We can rarely control the action of germs when they are once introduced into the body. The cells of the body may fight the germs and even their spores, the germs may use up all their food and die of starvation, or they may commit suicide by poisoning themselves with their own productions; but medicines are almost useless to further these results. If full protection is desired, the body itself must be rendered incapable of being attacked by the germs. A former attack of the disease, from which the animal has recovered, affords in many cases the desired protection, and to attain this safely is the object of protective inoculation. Pasteur dwelt long upon Jenner's

discovery of cow-pox vaccine, and at last found that when cultivations of the germ of chicken cholera were allowed to remain exposed to the air for some time, they became incapable of causing the death of a fowl when inoculated; but such a fowl was then proof against the action of a stronger cultivation of the germ. This, Pasteur believed, was due to the action of the oxygen of the air, and he used this theory as a working hypothesis for his experiments on other diseases. Applying himself next to the splenic disease of cattle, the life history of whose germ had been worked out by Koch, Pasteur found that his method was rendered useless by the resistance of the spores of the parasite. These were not formed by the germ of chicken cholera. He observed, however, that at a temperature of 42° to 43° C., near the life-limit of the parasite, the spores were not formed, and then the rods of the germ, when exposed to the air, behaved like those of chicken cholera. Their virulence was diminished, but their vaccinating power remained. Experiments on a large scale were then conducted successfully at Melun in 1881. The researches of Pasteur were afterwards criticised. The vaccinating fluids were found to be not uniform in virulence, and consequently some animals were sacrificed by the process. The immunity was not everlasting, but this objection also applied to Jenner's vaccine. It was said that the immunity was only against the injected vaccine, and not against the acquired disease. But the results of inoculating large numbers of animals proved the value of the process. Other methods of attenuation were then discovered—namely, by heating the germ to 55° C. for ten minutes (Toussaint), by heating it to 47° C. for a longer time, and also by subjecting it to a pressure of eight atmospheres at a temperature of 38° to 39° C. (Chauveau), and by the action of antiseptics (Chamberland and Roux). Again, passage through various animals by inoculation was found to attenuate the virus of certain germs. The germs of chicken cholera and of swine plague were attenuated by passage through rabbits. The germ of sputum septicæmia could be attenuated by passage through guinea-pigs, and later on it was found that the poison of hydrophobia was weakened by being passed through a series of monkeys. Yet in all these cases the attenuated virus rendered an animal proof against the stronger poison. The virulence of these attenuated poisons could afterwards be restored by inoculating first young animals, and from them older ones, showing that the nature of the disease was unchanged. Possibly, Pasteur suggested, the oxygen of the air caused epidemics of infectious diseases to subside, while frequent passage of poisons through the lower animals brought about fresh outbreaks, or even produced new diseases. Pasteur's theory of attenuation by the action of oxygen had been much opposed. Chauveau found that when germs were heated to 47° C. attenuation was more rapid when the air was exhausted. Apparently, then, heat was the active agent. Pasteur had originally thought that he might have been dealing with two poisons, one weak, the other strong, the one counteracting the other. Other observers had found his inoculating fluids contaminated by foreign organisms, so this suggestion may really be true. In his later work on hydrophobia, he again remarked that other influences might be active in producing the attenuation. Yet he still used his first theory as a working hypothesis, and applied it to the investigation of hydrophobia, of which the germ has not yet been discovered. By infecting rabbits with the poison of this disease, he obtained a virus of uniform strength, situated principally in the nerves and spinal cord, and more powerful than that obtained directly from dogs. This could be attenuated by passage through monkeys, but the results were uncertain. By exposing the spinal cords of infected rabbits to dry, sterilised air, an attenuated poison could be obtained capable of protecting even man from the disease without endangering his life. Moreover, the period of incubation of the weakened virus was sufficiently short to enable it to produce immunity before the poison of a bite previously inflicted could become active. The value of this method is conclusively shown by the statistics most recently published by Dr. Ruffer. The lecturer pointed out to his student hearers, as the moral of his address, that they should not neglect the science of their studies, since it led to great practical results, and that, following the examples of the two observers chiefly mentioned, Pasteur and Koch, they should not be discouraged by difficulties, but always be working with such resources as they possessed.

ST. THOMAS'S HOSPITAL.

INTRODUCTORY ADDRESS BY MR. WILLIAM ANDERSON.

THE main subject of this address was a historical review of the growth of surgery in Europe from the beginning of the sixteenth century. After a brief reference to the rise of Greek surgery from the time of Hippocrates to the death of Paulus of Egina, and its transmission in a weakened form by the Arabs, a picture was drawn of an educated European surgeon of the close of the mediæval or conservative period. The chief items of his library and armamentarium were enumerated, and the nature, extent, and source of his professional lore explained. He was found greatly inferior in originality and practical attainments to his Greek predecessors; and, inheriting all the timidity of action of his Arab teachers, allowed the most important branches of his craft to fall into the clutches of a horde of quack bonesetters, stone and rupture cutters, cataract couchers, and the like, while the rivalry of a lower grade of surgeons in France, England, and Germany threatened his complete extinction. An account was then given of the origin and progress of the coming men, the barber-surgeons, and the endeavours on the part of their emancipated brethren in France and England, the military surgeons, to elevate their calling by the formation of associations such as the College of St. Côme in Paris and the Fellowship of Surgeons in London. A new era of surgery opened with the sixteenth century, owing partly to the revival of anatomical study under Berengarius, Vesalius, and others, partly to the necessity for a fresh departure in connexion with the rapidly prevailing use of firearms in warfare, and the invasion of Europe by syphilis. The substitution of clinical observation and pathological research for the study of books of past ages was strongly advocated, and the genius of a few men, almost unaided by the schools, exercised a wide influence upon surgical aims and practice. The chief advances during the period were in the rational treatment of gunshot wounds, the power of controlling hæmorrhage in amputations, and the relief of strangulated hernia; but beyond this a novel and unconventional type of surgical literature in the vulgar tongue played an important part in diffusing knowledge and stimulating inquiry. The services rendered by Ambroise Paré, Pierre Franco, and other representative surgeons of the period, were passed in review. The seventeenth century although illuminated by Harvey's discovery of the circulation of the blood, and the researches of Aselli and Pecquet upon the lymphatic vessels, produced no surgeons of the first order. The treatment of gunshot wounds, however, made considerable progress under Wiseman and Magati, and a few other steps of advance were taken. Surgical education remained in a low state except in Italy, where a system of clinical instruction was established. This long stagnation of surgical enterprise was succeeded in the eighteenth century by the manifestation of forces of a higher and more varied type. The scientific teaching of anatomy and surgery made great strides. Surgical pathology was created by the labours of Hunter, Petit, Pott, and others. Operative surgery attained a development that left nothing to be desired in the directions of boldness and manipulative skill. Important schools were founded in London, Paris, Berlin, Vienna, and Philadelphia; and the scientific and social position of the surgeon everywhere except in Italy, where it had always been high, underwent a great change for the better. The master spirit of the period was John Hunter, who first evolved the broad principles of surgery which were to direct all future research and practice. The present century was referred to as one of phenomenal progress in scientific and practical surgery, especially during the last three decades. The vast extension of professional education, the great development of the medical press, the facilities provided for investigation, and the multiplication of scientific appliances for diagnosis and treatment were commented upon, and the far-reaching effects of the two great surgical discoveries of the age—the means of annulling pain during operation, and the relations of germ infection to the progress of wounds—were discussed in detail. The address concluded with some remarks upon the lessons taught by the history of the evolution of surgery, and a few words of counsel to the portion of the audience just commencing their term of professional education.

UNIVERSITY COLLEGE.

INTRODUCTORY ADDRESS BY MR. RICKMAN J. GODLEE.

THE lecturer, in opening his address, deprecated the custom, which was becoming obsolete, of giving introductory addresses as being laborious to the giver and useless to the student. He then gave an account of an amputation performed in the sixteenth century by the distinguished French surgeon, Ambroise Paré, in order to show the crudities of knowledge and treatment at that period compared with the advanced state of surgical knowledge at the present day. Reference was then made to the state of surgical knowledge even so recently as twenty years ago, and, by way of illustration, an imaginary case of injury was given with the treatment which would have been accorded at that time. Mr. Godlee went on to show that his supposititious case would to-day not be subjected to amputation at all, but the patient would most certainly have his limb saved, such were the enormous strides that surgery had made in recent years. The importance of scrupulous surgical cleanliness in the performance of operations was strongly insisted upon. He congratulated them upon the improved tone which now prevailed, and which no longer made the term "medical student" one of reproach. He then referred to the great increase in the system of teaching by demonstrations, which he maintained was only of partial advantage; for whilst it no doubt increased the average attainments, it levelled down as well as up, and made the mere acquiring of a degree seem the one thing needful.

WESTMINSTER HOSPITAL.

INTRODUCTORY ADDRESS BY DR. PHINEAS T. ABRAHAM.

THE lecturer, after referring to the honour his colleagues had done him in entrusting to him the duty of opening the school, alluded to the gradual waning of these time-honoured annual meetings of teachers and students, and said some words in favour of such functions. In welcoming the new students, he said that he considered that they had done well in choosing the Westminster Hospital as their *alma mater*. Being a small school there was no fear of their being lost in a crowd, but coming, as they would do, into close contact with all their teachers they might command more personal assistance from them than would be possible, except for a favoured few, in the large schools. They would, moreover, reap the great advantage which the Westminster Hospital affords of an abundance of clinical material in proportion to the number of its students. The lecturer then referred to the great success of Westminster students at the various examining boards. In physiology no less than 83 per cent. had been successful. Examinations, however, were not everything; the teacher had to remember that a medical man had to be always learning, observing, and judging. Medicine was progressive. The student had to be equipped with methods of thought and research, as well as with principles and facts, which would be useful hereafter. The medical curriculum was in a great measure calculated to develop a man's faculties, and to train him to accurately see and interpret natural phenomena; but our system was not yet perfect. He considered that those who aspired to become members of a profession which should be pre-eminently scientific, and which should be second in culture to none in the land, should show evidence of a good general education—e.g., by passing a preliminary examination of the standard of the London matriculation and a substantial knowledge of chemistry and physics, the laws of which really govern all the phenomena of health and disease. The medical course should, in his opinion, be extended to at least five years; for while the subjects of professional education had multiplied and their range enormously extended, the time allotted to their study alone had not increased for many years. It might be objected that if the conditions were made so much more onerous the supply of candidates for the profession would be materially diminished; but would that be an unmixed evil? It was becoming well known that there were already too many practitioners of medicine, and that it was impossible for them all to make an adequate livelihood. He quoted from some lately published statistics of the General Medical Council, which showed that while the rate of increase of population in England in late years had been 1·4 per cent. per annum, the increase of registered practitioners during the same time had been at the rate of 2·42 per cent. It was stated that "the net increase of the profession in England during the quinquennium 1881–86 was no less than 826 beyond what was requisite to keep pace with the population." In London especially the plethora was extreme; in 1886 it contained 1943 registered practitioners over and above its due share. But if fully-fledged doctors were as thick as blackberries, the would-be votaries of the art were still more numerous; for the last five years an average of 1921 entering medical students have annually registered their names. The lecturer did not adduce these figures to discourage his hearers, but he thought that they forcibly indicated two things—(1) that if competition had been severe in the past, it was certain to be still more so in the near future; and (2) that they would all have the greater need for steady work, and for making the most of their opportunities from the very start if they were to succeed in the struggle. He enumerated a long list of the qualities which various authorities, including Hippocrates, had laid down as essential to the success of a medical man, and from these they could judge what paragons of excellence they ought to be. It was true that occasionally some individual of imperfect education in his work, who had not demonstrated to his professional colleagues at least many of these characteristics, attained by "push," and with adventitious aid, to the position of a "fashionable physician," and acquired a certain amount of reputation among the uninstructed, who could not detect the fraud. But such instances were rare. Considering, indeed, the gullibility of a large section of the public, as evidenced by its trust in everything which was sufficiently advertised, it was surprising that the humbug and charlatan were not more to the fore. All this might be beneath our notice; but the fact remained that, while many a competent practitioner is struggling to make two ends meet, fees which legitimately should go to him find their way to the pockets of unscrupulous adventurers, who thrive on the public credulity, and to the general detriment. (Although the interests of the profession are supposed to be in the keeping of great councils and corporations, such matters as the showing up of such impostors was generally, it seemed, left to the private efforts and expense of members of the profession.) It was satisfactory and only fair, however, to say that the great organs of public opinion at the present day show a due appreciation of the *rôle* of our profession, and are not sparing in their acknowledgments of what a London morning journal has recently called "the inestimable services rendered to mankind by physicians and surgeons," whom it describes as "that true Legion of Honour, the members of which, officers and men alike, lead noble lives," &c. Such words are some encouragement in our efforts. The "barber-surgeon" is long since extinct, and the hybrid medical tradesman is becoming obsolete. The physician of to-day is no longer a mere "coprogogue," nor is the surgeon only worthy of the name of "Sawbones;" and Voltaire's often-quoted dictum, that a medico was "a man who poured drugs, of which he knew little, into a body of which he knew less," is not quite so true now as it was. "We can look with pride to the enormous and steady improvement in the public health wherever the modern doctor has had his say. We can point to the fact that London—this seething cauldron of human beings—is the healthiest city in the world (in spite of the profusion of doctors!) as a concrete result of the attention paid to the advice of sanitarians." He had heard a place described as so salubrious that no one could die there; when the old people desired to depart this life they had to go into the next parish! "But this is not a common experience. We have indeed a huge continent of unknown facts in the causation, prevention, and treatment of disease yet before us for exploration. The points of attack are obvious, and there are plenty of willing and able hands for the work; but the 'sinews of war,' which are as necessary in this campaign as in any other, may be wanting. It must be admitted that in recent years the State has more and more recognised its obligations to the public weal, and has done much for the science of health; but a great deal is still left to private effort and generosity. We have had to await the initiation by his Royal Highness the Prince of Wales and his 'Damien Committee,' of a much-needed crusade of investigation, against one of the most terrible scourges of mankind, and we have had to leave gaps in our knowledge of an important therapeutic agent, until

an enlightened Indian prince comes forward and handsomely defrays the cost of its re-examination. May some of our Cræsuses nearer home take a hint from his splendid example." The lecturer desired to enter a plea for a more thorough study of physiology on the part of medical students, who did not always grasp the fact that the subject did not merely consist of tables of constituents, series of functions, divergent theories, &c., to be learnt by heart. If they gave as much time to the things which were shown to them in the lecture-room and laboratory as they did to the names which they labour to commit to memory from their "cram" books, they would not find it dry. "The processes of health and disease are not really different in kind. Physiology and pathology are part and parcel of one science. There is no distinct line of demarcation between them; our knowledge of the latter can be but little advanced except through a knowledge, and by the methods, of the former. It will be to the well-trained physiological mind that the problems of disease will the easier yield." Dr. Abraham then offered some practical suggestions in reference to lectures, note-taking, &c., founded on his own experience. He strongly recommended students to use all their senses, and to satisfy themselves that what they were told was correct. It was a mistake to depend upon books rather than upon practical work. After some further remarks on degrees &c. he expressed his pleasure at seeing in the chair his teacher, the brilliant Professor of Anatomy of the University of Cambridge, and thanked his hearers for the patience with which they had listened to him.

SCHOOL OF PHARMACY.

INTRODUCTORY ADDRESS BY PROFESSOR JOHN MARSHALL.

PROFESSOR MARSHALL was prevented by indisposition, which we trust is of a merely temporary character, from being present to deliver the following address, which was therefore read on his behalf by Professor Attfield. After some introductory remarks on the past history and present position of the school in its various departments, Professor Marshall referred to the action of the Pharmaceutical Society as follows:—"It would ill become me, so much a stranger to your affairs, to appraise the merit of any one of the many personal agencies which have been or which are now engaged in your particular educational field; but I must be allowed to offer my opinion that you have already gathered in a goodly harvest. I speak not alone of the stimulus you may have given by your highest distinctions to original or otherwise valuable and elaborate research; but I would say, as a member of my own profession, and as one of the body politic of this great country, it is no idle boast to proclaim that, of the 14,000 individuals whose names are inscribed on your register, about half—i.e., 7000—have passed either your major or your minor examinations. Now this observation leads me naturally to turn to consider the special function which we are called upon to witness and participate in to-day; I mean the award of honours to those who have just been tested in their respective departments of study, and have distinguished themselves by special merit as to their scientific knowledge or their technical skill. I need hardly say that I desire to offer the successful candidates my sincere congratulations, to which I am sure I may add those of the Council, the professors, and the lecturers, on having earned these hard-won distinctions. I may remind them that the receipt of such honours assuredly involves future responsibilities not to be lightly set aside or carelessly neglected. All prize winners are marked men, and their future career does not pass by unobserved. Early rewards received at the hands of an honoured public institution are not only a recompense for past exertions, but should be regarded as pledging their recipients to future efforts for the maintenance of the reputation not only of the individual but of the Society under whose training they have been earned. Nor, rightly considered, should those who have only relatively failed in a competition for a necessarily limited number of prizes be held exempt from the same obligation; for even in regard to them it is impossible to overrate the value of their methodical training and their individual efforts to succeed, nor the general beneficial effect of the race which they have run against others just a little more successful in their scientific and technical contest. ..... It is not for me to intrude my opinions on those debateable questions which involve the commercial interests of the members of your Society—such, for example, as relate to the competition between co-operative trade associations and private establishments; to the necessity which exists in the former case for attaching definite personal responsibility in regard to the purity of drugs, the accuracy of dispensing, and the sale of dangerous poisons; and, again, to the question of the desirability of the State obtaining a source of income from the sale of patented medicines. But I may be allowed to express, as the representative of the General Medical Council, the sympathy of that body towards every endeavour and every practical suggestion which may be made by this Society, with a view of improving the British Pharmacopœia, the responsibility for framing and publishing which is by law vested in that Council. Hence comes a direct and continuous encouragement to your legitimate aims of advancing pharmacology as a science, and of promoting pharmacy as an art. The immediate object of your Society is, as I understand it, to afford the means of a perfect education, general, scientific, and technical, to all your future Members and Associates, so that each and all may attain to a high state of culture, knowledge, and efficiency. Your past history shows that you will not halt in your efforts, but will even yet improve in your methods and in your results. To this end your future students, many of whom, unhappily, are outside the sphere of your influence and guidance, and must often be imperfectly informed as to the fittest course for them to pursue in regard to their education, should seek early in their career some friendly and trustworthy advice. It might not be beyond the scope of the duty of your Society itself to circulate very widely a brief pamphlet, containing advice especially intended for those who are still in the apprenticeship stage. It should be strongly insisted upon that a good preliminary general education is absolutely necessary to all who aspire to be really accomplished pharmacists and to be worthy Members or Associates of your body. It is of the greatest moment, moreover, that the general education of which I have spoken should really be in fact, as in name, *Preliminary;* and therefore the needful examination tests in it should be passed *before* the systematic scientific training is commenced; whilst this, again, should if possible precede the special technical work. It must of course be granted that this last recommendation cannot always be followed; but, if not, at least the scientific habit and scientific mode of thought should be invariably inculcated, even by the practical teacher, as the ever leading and essential guides, by which to interpret and illuminate the simplest technical procedure. In this way the humblest task is elevated; manual dexterity and mental improvement advance together; and every process thus watched, and every result thus accomplished will yield the reward of intellectual satisfaction, and will excite the pardonable emotions of pride and triumph which spring from the dutiful and successful performance of the humblest work. Finally, I would urge in the most positive manner, that not only socially, but professionally, the greatest probability of real success in life will fall to those who have had the most liberal as well as the best scientific and technical education. On the most interesting but perplexing questions relating to *examinations* I am not now prepared to enter at any length. That examinations cannot be abandoned is clear; that there are evils connected with them is obvious; and hence the conclusion is evident that it is the business of examining bodies and examiners to investigate the charges against them and to aim at their improvement. That some examinations may be too feeble and others too severe must also be true; for examining boards will differ as to what is the proper mean. A due admixture of the systematic and the practical form of examinations is absolutely needful, for theoretical questions cannot well be answered *viva voce*, and all technical work must be directly tested. The more of the latter the better, and yet not at the expense of the former. Longer time may be required; but the results will be more satisfactory and more fair. Besides this, 'cram' will sink to a minimum, and be even beneficial, for it must take the practical form of doing actual work. I am a strong advocate for the introduction of what are called 'outside' or 'coadjutor' examiners; but this only in co-operation with the institutional teachers, who best know the aims and the extent of the preceding education. Of course, this remark applies specially to bodies, which both teach and examine, and thus it is surely applicable to your own Society. In regard to purely examining bodies, no particular training institution or school should be over-represented on the examining board. In all cases two examiners at least should work together at every part of

every subject. As to the subjects which are to be examined in at each time, they are often too many or are too severely represented; either practice is a serious source of overstrain, as well as of illegitimate and unhealthy 'cram.' If the subjects at each examination were fewer, if schedules in certain otherwise enormous subjects were adopted, and if the examinations were more prolonged and practical, 'tutors,' not 'crammers,' would take and keep the field. I cannot close this address without offering your Society my warmest congratulations on the establishment of its research laboratory. It will undoubtedly prove useful, nay, indispensable, to many an advanced student, who, whether trained within your own walls or elsewhere, may aspire to lend his aid in endeavouring to promote real knowledge in ever so simple yet unexplored corner of chemical or pharmaceutical research. But what I would specially refer to is the encouragement which you now offer to the higher and more elaborate and more difficult prosecution of inquiries in what is understood as pure science, undertaken for science's sake. Pharmaceutical chemistry, and, through it, pharmacology, has before it, in the domains of nature, both inorganic and organic, never-ending problems, concerning the constitution and action of remedial substances, which nothing but the highest and most prolonged investigation can pretend to solve. In such inquiries the physiologist must take his share; but, in your own sphere of investigation, they invite you to reap a rich reward, not only in an increased reputation with the outside scientific world, but in the realisation of a corporate pride arising from your own augmented influence, in the increased reliance of the public upon your opinion and guidance, and, I doubt not, in that progressive success which all must desire for you."

ROYAL VETERINARY COLLEGE.

THERE was a large attendance of both old and new students at the opening of the winter sessional course of instruction at this college on Tuesday; the chair was taken by Sir Nigel Kingscote, K.C.B., and Professor Gerald F. Yeo, F.R.S., of King's College, delivered the introductory address. In the course of his remarks he expressed his belief that the mutual distrust between veterinary and human medicine was fast disappearing with the growth of a wider knowledge of each other's methods. It had long been recognised that there was only one physiology of both man and the lower animals, but the mutually supplementary character of human and animal pathology had now become well known, and was daily assuming more importance in each of those branches of medical science. The great progress in pathological knowledge must be attributed to the fact that experimental researches concerning disease in the lower animals have been added to the observations on man. Among the preventive measures of modern times inoculation stood foremost, and it was regrettable that so much scepticism existed as to the efficacy of vaccination. Again, we were receiving every moment more reassuring details concerning the prevention of that uniquely fatal disease, hydrophobia, and no doubt a great future seemed in store for preventive inoculation. But we must not let ourselves be carried too far by the flood of apparent success. In some diseases it fails; in some its efficacy is doubtful; and in some it might be a means of propagating disease.

MEDICAL OFFICERS OF HEALTH.—The annual meeting of the Society of Medical Officers of Health was held at the Guildhall, Worcester, on Saturday, Sept. 28th, Professor W. H. Corfield presiding. At the conference of medical officers which followed, Dr. H. Swete read a paper on the "Actual and Probable Effects of Recent and Prospective Legislation upon Medical Officers of Health." The salaries of such officers ranged from £1000 to £3. He proposed to make the minimum £100 per annum, no private practice to be taken when the salary exceeded £300 a year. Dr. Taylor (Liverpool) thought that no medical officer should be appointed without the highest credentials. He placed no confidence in diplomas. Mr. Willis-Bund, vice-chairman of the Worcestershire County Council, said the question of appointing a medical officer for the county was now under consideration, but there were certain difficulties to overcome first. Dr. Whitelegge, medical officer of health for the West Riding, read a paper on the best means of carrying out the Notification of the Infectious Diseases Act. Numerous speakers took part in the discussion which followed.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ROYAL FREE HOSPITAL.

CASES UNDER THE CARE OF MR. GANT.

ALTHOUGH it is now more than two centuries and a half ago that a loose cartilage was recognised and removed by a Swedish surgeon, Pechlin, it is only since the recognition of the efficacy of antiseptics that a surgeon has undertaken the direct operation for their removal from the knee-joint with anything like confidence. In the following case the body was not completely separated from the synovial membrane, but had a pedicle of sufficient length to enable it to produce symptoms demanding its removal. Formerly the mortality after operation was high; by the direct method Volkmann[1] placed it at 21 per cent., and by the indirect, Larrey's statistics placed it at 12·8 per cent. This did not, however, mean that the others were cured, for in a large percentage when the cartilage was unattached the surgeon had failed to remove it. In the introduction to a case of removal of a loose cartilage from the knee-joint, which we recently published in the Mirror,[2] we mentioned most of the methods of treating the wound after such removal, and some different ways of applying the sutures. Mr. Jacobson,[3] in a paper on the subject of loose cartilage of traumatic origin, has placed the evidence for their occasional derivation from the bone surfaces before the profession. The following notes have been supplied to us by Mr. E. C. Stabb, senior resident medical officer.

CASE 1. *Loose body in the knee-joint; removal; perfect result.*—H. M——, aged forty, was admitted into the Royal Free Hospital, under the care of Mr. Gant, on June 17th, 1889. Ten months previously he had struck his left knee; it was very painful and slightly swollen for a few days. On June 14th, three days before admission, the patient noticed a movable lump on the inner side of that knee. It did not cause him pain or inconvenience in walking, but he had suffered from occasional pains in the joint, especially during east winds, and he was very anxious to have the lump removed. There was no rheumatic history in the family.

On admission there was on the inner side of the left knee-joint a flat, round, firm swelling, about an inch in diameter, freely movable under the skin. On flexing the joint the body slipped outwards under the ligamentum patellæ. The joint was free from effusion, and there was no swelling or redness. The temperature was normal. On June 29th, the patient being anæsthetised, the surface was rendered aseptic, and the body fixed by fingers on the inner side of the joint. A skin incision, an inch and a half long, was made over it; all hæmorrhage being immediately arrested. The capsule of the joint was incised to the same extent. The body slipped partly out, but was found to be attached by a short pedicle about an eighth of an inch in diameter; this was divided; there was no bleeding. Three wire sutures were introduced, not including the capsule. The wound was covered by a strip of oil silk, the surrounding skin dusted with iodoform, and a sal-alembroth dressing applied. The limb was enveloped in cotton wool from the toes to the groin, and over this were placed, in front and behind, strips of Bavarian flannel soaked in plaster-of-Paris, also from the toes to the groin. On July 6th (the eighth day after the operation) the knee was dressed for the first time. The wound was perfectly healed; the stitches were removed. There was no heat or swelling about the joint. The patient had suffered no pain, and his temperature never reached 99°. A dry dressing and the splints were reapplied. On the 12th the splints were discontinued, and the patient was allowed to get up and walk a little, which he did with perfect ease. He was discharged on the 15th, the joint

[1] Holmes' System of Surgery, vol. ii., p. 357.
[2] THE LANCET, vol. ii., 1889, p. 71. [3] Ibid., vol. ii, 1889, p. 363.

being perfectly free from pain, swelling, or stiffness, and the movements quite free.

The removed body measured three-quarters of an inch in diameter, was flattened and rounded, somewhat elastic, with a slightly nodular surface, and greyish in colour. On microscopic examination it was found to consist of fibro-cartilage. The fibrous portion being small in amount, and the cells very numerous, many of them presenting embryonic characters.

Remarks by Mr. GANT.—The comparative absence of symptoms in this case was unusual, the patient never having experienced sudden locking of the joint in walking, with sickening pain. This may be explained by the somewhat soft consistence of the pedunculated body, and by the fact that it readily slipped into the space behind the ligamentum patellæ. Nevertheless, having regard to the almost inevitable supervention of synovitis, with probable destruction of the joint eventually, it was considered advisable to remove the body from within the capsule, rather than, after the joint had become disorganised from synovitis, to have to resort to operation.

CASE 2. *Epithelioma of leg; amputation; recovery.*—S. G——, aged fifty-nine, married, laundress, was admitted into the Royal Free Hospital on June 17th, 1889, under the care of Mr. Gant. Twenty-six years previously a white spot appeared on the front of her left leg without any apparent cause, and from which she suffered a good deal of pain. The application of ointment was followed by the appearance of a raw surface, which never closed, though on one occasion it scabbed over. The ulcer slowly increased in size, occasionally showing a tendency to heal in parts, but only temporarily. At Christmas, 1888, the patient received a blow on the leg, after which the ulcer became much deeper. For this she was treated with strapping at an infirmary. Before and after this she used to apply zinc ointment to the ulcer. About the beginning of April, 1889, a small hard swelling appeared on a part of the wound, and has gradually increased in size, the pain also being more severe. The patient had worked hard all her life, and had had thirteen children. She had suffered much the last three years from severe attacks of bronchitis, and two years ago had an attack of pleurisy. No family history of tumour could be elicited.

On admission, the left leg was found to be the seat of a long, irregular, ulcerating surface, red and glazed. On the inner part of it over the skin, about midway between the knee and ankle, was a large, irregular elevation, rising in some parts to three-quarters of an inch above the surface, and between three and four inches in diameter. This swelling rose abruptly from the ulcer and was covered with hard nodules, in some parts it was fissured. The skin on the inner side of the elevation was pigmented and infiltrated for a distance of about an inch. There were no enlarged lymphatic glands. The patient complained of severe pain, more or less constant. On June 29th Mr. Gant amputated the limb by anterior and posterior flaps, sawing through the femur just above the condyles, and removing the patella. Wire sutures and drainage-tubes were introduced, the stump was dressed with sal-alembroth dressings, and a posterior plaster-of-Paris splint applied. On July 1st the stump was dressed for the first time and was doing well. It was dressed again on the 5th, when most of the stitches were removed. On the 8th the patient complained of having had a very restless night and a troublesome cough. Temperature 101·6°. Numerous mucous râles were heard all over the chest, and there was dulness at both bases posteriorly. The sputum was profuse, muco-purulent, and nummulated. Up to the 13th the cough and dyspnœa increased in severity. With stimulant expectorants, quinine, and brandy the breathing and cough became easier, and by the 19th the respiratory sounds were nearly normal. The stump steadily improved, and by Aug. 5th the wound was healed and the patient felt strong and well, getting up for the first time a day or two previously.

On microscopic examination of the swelling numerous down growths of the epithelium into the corion were seen, and here and there "bird's-nests."

Remarks by Mr. GANT.—The unusual situation of epithelioma in this case will appear to be due to the fact that the growth had arisen from an old ulcer of the leg, which in itself is not a common mode of origin of epithelioma. The leg was removed above the continuity of the tibia, in order to ensure the less probable return of the growth, and in this connexion it may be observed that the glands were not enlarged. The subsequent course of the case was complicated by a severe attack of bronchitis, but this in no way hindered the primary union of the operation wound, although the patient had attained the age of fifty-nine.

RICHMOND HOSPITAL, DUBLIN.

A CASE OF ABDOMINAL TUMOUR; OPERATION; DEATH; NECROPSY.

(Under the care of Sir WILLIAM STOKES.)

PRIMARY CANCEROUS GROWTH of the stomach is one of the most frequently fatal forms of malignant disease, that viscus being more rarely affected in a secondary manner by extension of growth from without. In the following case the disease appears to have originated in the neighbourhood of the cœliac axis, and to have presented many features rendering the diagnosis uncertain. Operation was performed with the view of giving relief should the nature and attachments of the growth not permit of its removal, and proved of much benefit to the patient, exit being given to a purulent collection and relieving pain. This was not merely a temporary relief, for the patient was free from pain throughout the remainder of his illness, and the operation was more than justified. Another point of interest is the formation of the gastric fistula by sloughing of part of the growth, which had invaded the stomach, some of its contents finding their way through the external wound. For the record of this case we are indebted to Mr. Edgar Du Cane.

J. G——, a farmer aged fifty, was admitted to the Richmond Hospital on Jan. 31st, 1887, under the care of Sir William Stokes (then senior surgeon), suffering from an abdominal tumour. His occupation necessitated a good deal of outdoor work, and before the present illness he had no serious indisposition. He was a moderate drinker, but never smoked. His father died of bronchitis, and his mother after a short illness, with the nature of which he was not acquainted. He had five brothers and four sisters, of whom only two sisters survive, the rest having died in infancy or early childhood. Until Christmas, 1886, he was apparently in perfect health, but at that time he felt slight pains in the abdomen, especially in the left side, and about a week afterwards noticed a tumour, slightly painful and tender on pressure. He saw a medical practitioner in the country, who was of the opinion, after examining him, that he was suffering from an abdominal aneurysm, and advised the patient to apply to a Dublin hospital for treatment. Thus far, beyond the presence of the tumour, no very serious symptoms were present, vomiting and violent pain being entirely absent.

On admission, on Jan. 31st, 1887, the temperature was 98·8°; pulse 85. Urine normal in quantity, pale in colour, and slightly turbid; sp. gr. 1035; no albumen or sugar. The thoracic organs exhibited no trace of disease. He had a pale, anæmic appearance, and complained of wasting, which had rapidly increased for the last three weeks. On examination of the abdomen a hard tumour could be felt by palpation, of an oval form, measuring about five inches by three and a half. It was fairly movable within the abdomen, changing its position according to the posture of the patient; it could be felt at various times in the umbilical, left hypochondriac, and left lumbar regions. The patient preferred to lie on his back, and when in this position the tumour presented itself in the umbilical region, a little above and to the left of the umbilicus. Indistinct pulsation could be felt on palpation, and a peculiar bruit (resembling the bruit de diable of anæmia) was heard on auscultating the tumour. The area over the tumour was dull on percussion. The liver appeared normal in size and position, but percussion over the splenic area yielded a clear resonant sound. Great pain was now complained of in the region of the tumour; frequent vomiting set in; the ejecta contained no blood. The diagnosis was narrowed down to a choice between floating spleen or kidney, and gastric or omental cancer. If there had been a kidney movable to such a degree as this tumour, it would have given rise to severe and constant pain of a sickening character, accompanied by hæmaturia. The absence of splenic dulness, coupled with the bruit, seemed to indicate a floating spleen, yet the tumour had not the characteristic shape of that viscus, and did not present a notched border. The pulsation was not of that expansile nature characteristic of aneurysm, and pressure symptoms were absent. It was therefore thought that the tumour

might be gastric or omental, but no definite diagnosis was arrived at. The condition of the patient was rapidly getting worse, and he earnestly desired that some surgical procedure should be adopted. After consultation with his colleagues, Sir Wm. Stokes decided to make an exploratory incision, and to remove the tumour if possible.

On Feb. 14th, 1887, Sir William Stokes performed laparotomy with full antiseptic precautions, and found the tumour to be a malignant growth attacking the stomach and omentum, apparently springing from the posterior wall of the abdomen and involving the sheath of the aorta, which sent a large vessel into it. The spleen was pushed far up under the diaphragm, thus accounting for the absence of splenic dulness. While examining the growth there was a discharge of pus from an abscess on its under surface. The extensive attachments of the tumour rendered it impossible to make any further attempt at removal. A drainage-tube was inserted into the abscess and the free end brought out of the external wound, which was then closed and dressed antiseptically. The patient recovered rapidly from the shock of the operation. Evening temperature, 99·4°.

Feb. 15th.—Patient slept well after a hypodermic injection of morphia, and passed a good night free from pain. Ordered milk diet. Temperature: morning, 100°; evening, 101°. Pulse: morning, 90; evening, 108.

16th.—Wound dressed and looking well; pus coming from drainage-tube. Patient feels very well. Hypodermic injection of morphia given night and morning. Temperature: morning, 99°; evening, 100·4°. Pulse: morning, 94; evening, 110.

17th.—The patient ordered milk, beef-tea, brandy, and chicken broth. Wound uniting; pus still coming through drainage-tube. Perfect freedom from pain. Hypodermic injections discontinued.

19th.—Patient takes food well. Wound united except at the upper end, through which pus comes in fair quantity. Several sloughs removed.

21st.—Patient taking plenty of nourishment; free from pain. Large slough removed, and a great quantity of pus.

Up to Feb. 26th he continued much the same, but on that date, while dressing the wound, fluid containing flakes of curdled milk and pieces of egg was observed to flow through the upper end of the wound, and from its chemical characters it was recognised as gastric juice.

28th.—Great flow of gastric juice through the fistula. Any fluid which the patient takes appears on the dressings, which have to be frequently changed. Injections of beef-juice per rectum four times a day.

March 4th.—Case going on as before. Great secretion of gastric juice. On swallowing some milk it immediately gushed through the fistula. The patient, though free from pain, was evidently sinking, and died on the 6th.

At the post-mortem examination, general peritonitis was present, the intestines being adherent to each other and to the abdominal parietes. Adhesions were formed all round the external wound, uniting it to the stomach, and completely shutting it off from the abdominal cavity. A cancerous growth involving the omentum and anterior surface of the stomach attached to the sheath of the great vessels was found. A probe passed easily through the œsophagus into the stomach, and out of the fistulous opening. The liver was marked by a few tubercles of secondary cancerous deposits. The other abdominal organs were healthy. Dr. McKee, after microscopical examination, confirmed the diagnosis of cancer. Mr. Du Cane exhibited the specimen of this case before the Carmichael College Medical Science Association.

Rebiews and Notices of Books.

The Physiology of the Domestic Animals. A Text-book for Veterinary and Medical Students and Practitioners. By ROBERT MEADE SMITH, A.M., M.D., Professor of Comparative Physiology in the University of Pennsylvania. With over 400 Illustrations. Philadelphia and London: F. A. Davis. 1889.

THIS is a handsomely got up and much needed work. Veterinary students in this country have absolutely no English work from which they can acquire a good knowledge of the physiology of the animals whose diseases they are called upon to treat. They have to learn their physiology from some of the small text-books on human physiology which contain many facts that are of little service to them in practice, and omit much with which they ought to be familiar. To take a single instance: if the veterinary student reads any recent work on the physiology of digestion in man, he will find many pages devoted to that process as it affects a mixed diet composed of cooked meat and vegetables, but the composition and the digestion of raw vegetable food is entirely passed over, nor is there any detailed account of rumination—points that are of essential importance in the economy of the animals with which he has principally to deal. No doubt a large proportion of human physiology as now accepted rests upon experiments and observations made upon animals; but it is taught with the modifications that experience has shown occur in his organs and under the conditions under which he lives, and not under those of the domestic animals. The foreign student has great advantages in this respect, and in the excellent physiological treatises of Colin and Thanhoffer can learn from masters of the subject both the mode in which physiological investigations should be undertaken and the reliable results that have up to the present time been obtained.

The work before us fills the hiatus of which complaint has so often been made, and gives in the compass of less than a thousand pages a very full and complete account of the functions of the body in both carnivora and herbivora. The first part is devoted to the consideration of cells, cell life, the physical properties of cells and of the tissues they form, and the chemistry of cells and the chemical processes that take place in their interior. The early chapters of the second part are occupied with the consideration of the processes of digestion, absorption, circulation, respiration, secretion, nutrition, and animal heat, and then with the physiology of the nervo-muscular apparatus. The third part is taken up with the reproductive functions. The author has judiciously made the nutritive functions the strong point of the work, and has devoted especial attention to the subject of foods and digestion, which occupy nearly 300 pages. Here there is much that the medical student might read with interest and advantage. Speaking of the food of horses, cattle, and other animals, it is stated that "a horse will eat 262 different kinds of plants, and has been seen to reject 212; the ox will eat 275 and refuse 218, the sheep will eat 387 and refuse 141. The hare will eat 449 and refuse 125; and the pig, which is omnivorous, and yet which can be sustained by vegetable food, has been found to devour 172 different kinds of vegetable matter and reject 171." In regard to the quantity of food consumed, it appears that experience has proved that solipeds should receive daily 2 per cent. of their body weight in solids, and ruminants 2½ per cent. of their weight. At the same time the student is taught that the food should be adjusted with special reference to the demands which are made upon the animal economy, whether for work, fat, or milk production. Good hay is taken as a type of a food for the larger herbivora, which shows a nutritive proportion of one part of nitrogenous matter to 4·8 parts of non-nitrogenous constituents, cellulose being disregarded; and although this, which may be regarded as the normal proportion, can be under circumstances changed to 1 : 8, or contracted to 1 : 4, the digestibility, and therefore the nutritive value, of the fodder is interfered with if these limits be passed. In the case of hay, again, the amount of fatty constituents is to the nitrogenous matters as 1 : 3·7. If this proportion be diminished to 1 : 2·2, the horse will still be able to accomplish its normal quantity of work; but if reduced below this for the horse, or below 1 : 3 for the ox, the full nutritive value of the food will not be obtained. From a consideration of such precepts as these, the medical practitioner might learn many things that are now neglected.

In looking through the other sections of the work, it

appears to us that a just proportion of space is assigned to each in view of their relative importance to the practitioner. Thus, whilst the subject of reproduction is dismissed in a few pages, a chapter of considerable length is devoted to locomotion, and especially to the gaits of the horse. The work is excellently illustrated throughout; and though most of the woodcuts are from well-known sources, a good selection has been made. In view, however, of the importance of the subject, a still better cut of the changes in the teeth from year to year in the horse and ox might have been made. The volume will prove very acceptable to all those who are interested in the rearing and maintenance of horses and cattle, and will serve a good purpose in spreading useful knowledge amongst the laity as well as amongst professional men.

OUR LIBRARY TABLE.

An Introduction to Pathology and Morbid Anatomy. By T. HENRY GREEN, M.D. Seventh Edition, Revised and Enlarged by STANLEY BOYD, M.B., B.S. Lond. London: H. Renshaw. 1889.—Since the first appearance of this favourite text-book, several other competitors have arisen in the same field, and the subject itself has gained considerably more attention at the hands of teachers and examiners. The preparation of the present edition has been undertaken by Mr. Stanley Boyd, who has certainly spared no pains to bring it up to date, and also to considerably extend its scope beyond its former limits. The result is a work which will, as in the past, doubtless prove very attractive to the student. For it has the great merits of being concise and systematic, and of being also furnished with a number of excellent woodcuts. Amongst the numerous additions to the text we notice a highly interesting section upon the etiology of inflammation, in which the "cryptogenetic" or idiopathic, as distinguished from the "phanerogenetic" or simple, traumatic inflammations are shown to be in all probability due to the operation of pyogenic organisms, coupled with impaired tissue-resistance, the work of Mr. Watson Cheyne being largely drawn upon in support of this contention. There is also a chapter on Fever, where the views so ably expounded by Dr. MacAlister are in the main adopted. Among infective granulomata, leprosy, glanders, rhinoscleroma, actinomycosis—all receive fair notice. The subject of inflammation of the blood-vessels is illustrated by engravings from micro-photographs by Dr. Mott. There is also a chapter upon the vegetable parasites—the only part of the book that is insufficiently illustrated,—which is introduced by an excellent discussion of the process of fermentation. In fact, the student will find, as heretofore, that "Green's Pathology" is a trustworthy and useful guide; and when he has mastered its contents he will be possessed of a considerable amount of knowledge which will materially aid in his conceptions of the nature of disease.

Transactions of the American Association of Obstetricians and Gynæcologists. Vol. I. for the year 1888.—This volume is almost entirely surgical, the subjects of abdominal surgery occupying the lion's share, while operations on the perineum concern three papers. A discussion on extra-uterine gestation occupies the last nine chapters. There are two interesting papers on fibroid tumours of the abdominal wall by Drs. Ill and Reed, the former containing a tabular summary of nineteen cases; and one on heart failure in the puerperium by Dr. Lothrop. As regards the perineal papers, there seems at present to be a fashion of fancy anatomy connected with these regions. Photographs of dissections of normal parts stand side by side with diagrams of the supposed condition after injury, on which are based deductions as to the functions of the various constituents of the perineum, and on these, again, descriptions of "new" operations. In our opinion, this is merely building inverted pyramids, an eminently unsatisfactory style of architecture. The base of all such attempts must be careful dissection of the parts as altered by injury in various cases. As regards the chapters on extra-uterine pregnancy, we would remind our readers that the position is the following:—Mr. Lawson Tait has enunciated theories which are highly novel and highly interesting. Their acceptance or rejection must depend on careful observations made in the future by men capable of trustworthy and unbiased judgment. For A or B to say that he is in thorough accord with Mr. Tait does not advance knowledge, for observations directed specially towards the confirmation or rejection of Mr. Tait's theories cannot be possibly forthcoming for some time to come. For A or B to say that they fully expect to find Mr. Tait's theories correct in the future is not illogical. But what good does it do?

An Elementary Text-book of Chemistry. By WILLIAM G. MIXTER, Professor of Chemistry to the Sheffield Scientific School of Yale University. Second and revised Edition. London: Macmillan and Co. 1889.—It must be presumed that the appearance of a second edition proves that a book was wanted, and in regard to the present text-book it may be said with truth that there is real merit, and even some originality, to recommend it. Some sections—that on Crystallography, for example—are excellent, and there are many well-described and well-illustrated lecture experiments. But there are grave faults to balance these advantages. The periodic classification which has been adopted is, in our opinion, most inconvenient for practical study. Why, except for ideal uniformity, should manganese be described before the alkali metals? or copper, silver, and gold before oxygen? Nitrogen, including, of course, the atmosphere, nitric acid, and ammonia, comes in about the middle of the book; and iron, divorced from manganese, near the end. The arrangement does not elucidate the periodic law, and it must be pronounced confusing and therefore bad. It was, moreover, a mistake to include so many scarce and practically unimportant elements in so very slight a manual; it was clearly caused by a slavish devotion to the great generalisation of Newlands (whose name is omitted) and Mendeljeff. How can it concern a beginner in chemistry to know that ytterbium hydroxide absorbs carbon dioxide from the air?

A Junior Course of Practical Zoology. By A. MILNES MARSHALL, Professor in the Victoria University, and C. HERBERT HURST, Assistant Lecturer on Zoology in Owens College. Pp. 440. London: Smith, Elder, and Co. 1887.—This work, notice of which we regret has been delayed, is written by two accomplished zoologists, both of whom have had large experience in teaching. It is of a thoroughly practical nature, and it is intended by the authors that a specimen of each of the animals mentioned should be obtained by the student, and the several points to which attention is directed in the text should be carefully examined. In this way they hope that a sound knowledge may be acquired of the structure of animals representing the principal types of the animal kingdom. The types given are the amœba, paramecium, opalina, and vorticella for the protozoa; the hydra, the liverfluke of the sheep, the leech, the earthworm, the fresh-water mussel, the edible snail, the crayfish, the cockroach, the lancelet, the dogfish, the rabbit, and the fowl. Why have the authors entirely omitted the amphibia and reptilia? The frog, the coluber, and a lizard are all easily obtained. The description of the several organs, with the mode of exposing them, is very clearly given, though necessarily brief. We fail to see the advantage of the indents or setting back of the paragraphs, which gives the book rather the air of a catalogue. The woodcuts, which are forty-eight in number, are remarkably clearly and

accurately drawn, and the reference lines and letters, which are of very exceptional occurrence in woodcuts, are easily followed. In each case directions are given as to the mode in which the animal should be dissected. The book is well adapted for what the Germans name self-study, but will prove still more serviceable if the student have access to a good museum containing well-made dissections by a practised hand, which would show him what can be accomplished by patience and care.

Surgical Bacteriology. By NICHOLAS SENN, M.D., Ph.D. Professor of Principles of Surgery and Surgical Pathology, Rush Medical College, Chicago, Illinois. Edinburgh: Young J. Pentland. 1889.—Bacteriology has now an extensive literature of its own, and quite an army of scientific investigators have devoted themselves to this field of research. The fruits of their labour have had a very conspicuous influence on current views of pathology and treatment, and it is therefore of great moment that all physicians and surgeons should be kept to some extent *au courant* with the results of bacteriological discoveries. Unfortunately for many of us, most of the researches are carried on abroad, and the accounts of them are published only in German or French, and are inaccessible to many readers. Dr. Senn has, therefore, attempted a most worthy task in extracting from numerous French and German publications brief digests of the bacteriological writings of the most skilled observers in this department of surgery. The work is very convenient for reference, as the original authors for the most part speak for themselves, and the task of Dr. Senn has been chiefly limited to collating the best work and to making condensed abstracts. Where the results of different observers are opposed, the uncertainty is left, and no attempt is made to close discussions on points which still require further light. We believe the book will be welcome to many of our readers, and all who have not made themselves familiar with this department of pathology ought to avail themselves of Dr. Senn's help.

Analytical Records.

THE ST. BEDE DISINFECTANT.

(THE ST. BEDE CHEMICAL COMPANY, LD., NEWCASTLE-ON-TYNE.)

THIS new disinfectant is sent out in small blocks; and the chief constituents, apart from small quantities of colouring and scenting compounds, seem to be sulphate of sodium, perchloride of mercury, and a little sulphuric acid. The intention is evident: the antiseptic power of corrosive sublimate is well known, and here it is associated with a large excess of sulphate of sodium to make a solution nauseous and violently aperient in case of its accidental ingestion; and with indigo, eucalyptus, and thymol to give it colour and smell. There is ingenuity in the idea, but we fear that so corrosive a mixture will hardly be suitable for general use. Moreover, the value of corrosive sublimate as a deodoriser is not great, and yet deodorisation is one of the most important duties expected from a disinfectant.

FRAME FOOD JELLY.

(THE FRAME FOOD COMPANY, LD., LOMBARD-ROAD, BATTERSEA.)

A fruit-jelly made with "Frame food." It is palatable and highly nutritious.

QUIBELL'S INFALLIBLE DISINFECTANTS—LIQUID, POWDER, AND SOAP.

(QUIBELL BROS., NEWARK, ENGLAND.)

The liquid is brown, syrupy, and concentrated. In odour it suggests cresol and pine oil. With water it gives a white emulsion, which, on addition of soda, clears with separation of some tar oil. Bromine gives a non-crystalline precipitate. In the powder and the soap the same active agents are easily detected. We believe that the preparations, which seem closely akin to some others already extensively used, are valuable as containing some of the most efficient of modern antiseptics.

PERINET ET FILS CHAMPAGNE, RHEIMS, EXTRA SEC, 1884.

(JOHN BARNETT & SON, 21, MINCING-LANE.)

Genuine and very dry champagne, of good flavour. Our analysis gave alcohol by weight 9·85 per cent., equal to 21 5 per cent. proof spirit; extract, dried at 212° F., 2·95 per cent., and ash 0·12 per cent. The wine is well suited for those to whom sugar is deleterious.

DIABETIC SCOTCH WHISKY.

(GEO. BACK & CO., 14, DEVONSHIRE-STREET, E.)

This whisky is almost absolutely free from extractive matter. It yielded to our analysis only 0·0275 per cent. of solid extract and 0·005 of ash. The alcohol amounted to 44·65 per cent. by weight, equal to 91·60 of proof spirit. It has scarcely any colour, and certainly seems to deserve its name.

MARKS' VIENNA FOOD FOR INFANTS AND INVALIDS.

(MARKS & CO., PENTON-STREET, LONDON, N.)

A cooked farinaceous food, as is proved by the microscope as well as by the dextrin reaction. We found wheat starch cells altered by heat, and no adulteration of any kind.

HEINEMANN'S WHEAT COFFEE. MADE ENTIRELY FROM THE FINEST WHEAT MALT.

(F. W. ALSOP, 33, VIRGINIA-STREET, GLASGOW.)

This is a curious, and, we think a valuable preparation. In appearance and odour it resembles coffee, or rather coffee with chicory. Infused as directed it gave an agreeable and nutritious beverage by no means unlike coffee, in which starch and dextrin were readily detected. Such a beverage possesses genuine food value, and will be acceptable to many to whom coffee is too stimulating.

CONCENTRATED WHITE BREAD.

(E. MOGG, ST. MARY-STREET, BRIDGWATER.)

Mr. Mogg evidently prepares excellent bread; but in what respect it claims special notice or why it is described as "concentrated" we do not understand.

NEAVE'S FARINACEOUS FOOD.

(J. R. NEAVE & CO., FORDINGBRIDGE.)

A pure cereal food preparation. The microscope shows the presence of wheat and oat flour, but no sign of any adulteration. It is properly described by its title.

CALLARD'S DIABETIC FOODS.

(S. CALLARD, 146, NEW BOND-STREET.)

No less than ten varieties of Callard's diabetic foods have been submitted to us, and after careful examination we are able to report that all are excellent. For the first five—namely, gluten bread, rolls, rusks, cracknels, and gluten and almond biscuits—it is claimed that they contain no sugar and only a trifling percentage of starch. The remaining five are described as cocoa-nut and almond biscuits, sponge cakes, and Madeira and almond cakes, very slightly sweetened with saccharin. These last are asserted to be absolutely free from starch and sugar. In regard to the samples submitted to us, these statements are entirely true. No sugar or starch was found in the last five, while in the first five there was no sugar but a little starch. Saccharin was present in the last two samples, but in very small and perfectly harmless quantities. In texture and flavour all the samples were admirable, and several would be eaten with pleasure even by persons who were not under diabetic restraints.

UNIVERSITY OF ST. ANDREWS.—A sum of £2000 has, it is understood, been presented to the University of St. Andrews for the purpose of erecting buildings and equipping a chemical laboratory in connexion with the chemical chair in the United College of St. Andrews.

THE LANCET.

LONDON: SATURDAY, OCTOBER 5, 1889.

IT would be easy to disparage the system of introductory lectures in the initiation of the winter's work of the medical schools, but the discontinuance of it would involve the loss of a great opportunity for impressing students and saying a word to the public on the public bearings of medical education. The significance of these bearings is plain enough, and was well brought out in the address of a layman, Sir ALBERT ROLLIT, on Tuesday. He discussed the grievance of the want of a teaching university in London, and a system of higher education which should involve something like a graduated degree system, and declared with a candour creditable to him as a London University graduate, that unless that university quickly rose to the occasion, it would be supplemented by another body. Low medical education is more and more at a discount, in spite of the strange statement in *The Times* that in poorer districts what is chiefly wanted is attendance on midwifery and the administration of purgatives! This is, indeed, a short compendium of medical art, but scarcely expresses the demands of the classes who suffer most and die most from disease, in which fevers, tuberculosis, rickets, bad habits, and bad hygiene have their chief harvest of victims. It may be confidently stated that the only things which will serve men either in poor districts or in richer ones are sound knowledge, kind dispositions, and professional aptitude. This was the burden of most of the addresses, which give no sanction to the idea of cheap education and easy examinations, and which vie with each other in enforcing the necessity for wider general culture, broader acquaintance with allied sciences, and larger professional experience. We cannot with much detail discuss the individual addresses, which covered a large range of subjects, some being strictly educational in their nature and object, others, such as Mr. GODLEE'S, dealing with the history of the profession or one of its branches. Mr. BLAND SUTTON sounded a high note on the importance of accurate observations in anatomy and pathology, not confined to the human species, and gave some very curious instances, what he called intellectual blindness, which will be read with interest. Dr. MAGUIRE traced the history of protective inoculations from that great beginning of JENNER to the last refinements of PASTEUR. At the Veterinary College Professor GERALD YEO ably discussed the same subject, and enforced the advantage of co-operation between human and veterinary practitioners. He made one startling statement, that students in the Veterinary College are better prepared and "show a much more accurate knowledge of the subjects they have to prepare for examination than the ordinary candidates of other qualifying bodies." We leave the teachers and students of human medicine to answer that charge.

The promoters of the "Practical Element in medical education" have no reason to be dissatisfied with the way in which that subject has been treated, notably in the two Addresses which stand out pre-eminently as model Introductory Addresses—viz., that of Professor GAIRDNER at the Yorkshire College, Leeds, and that of Dr. CLIFFORD ALLBUTT at his old school of St. George's. It is much that the arguments for more attention to useful knowledge and the cultivation of practical aptitudes in medical education have been seriously entertained by such teachers, even if, in the end, they have to express dissent and disapproval of particular methods for securing this great result. The mere discussion of such subjects by such speakers in an Introductory Lecture, and as it were, before the public, is a decided gain. No one should know Mr. WHEELHOUSE'S views better than Dr. CLIFFORD ALLBUTT; but we cannot help thinking that he has unintentionally misrepresented him in saying that he is in favour of a reversion to the old practice of a five-years' apprenticeship to a general practitioner. Mr. WHEELHOUSE may have in some recess of his mind an affection for that old institution, as many practitioners have who had the privilege of having men of character for their masters; but we know of no recent deliverance, either by that gentleman or any other responsible person in favour of so impracticable and antiquated an idea. We may leave Mr. WHEELHOUSE, however, to defend himself on this point. He and Dr. CLIFFORD ALLBUTT are not very likely to come to serious blows: the more so as, fortunately for the cause of this "practical element" point in medical education, Dr. ALLBUTT has conceded the essence of what its promoters have urged—that at some stage of medical education there is a place for a student learning the art of practice; what he calls, with perhaps less than his usual force and felicity of language, the "domestic side" of medical work. After the faculties have been trained and strengthened in the main branches of medical education "one year's apprenticeship would do the work of five in an earlier age, and an obligation upon young men thus to apprentice themselves before the completion of their studies would have my approbation and support." This is a large admission, larger even than some of us may think necessary, but it is sufficient to show that in the opinion of so capable a judge there is something which is not taught at present either by hospital practice or any other part of the necessary curriculum of a medical student. The rest of Dr. CLIFFORD ALLBUTT'S address would tempt us to write at greater length; but we must defer further remark at present than the expression of our general acceptance of his view of the virtues and defects of the ordinary medical practitioner and his arguments for raising the general culture of the profession by insistance on university studies and discipline and the cultivation of the philosophic mind. It is almost enough to reconcile young practitioners to the somewhat excessive leisure of early professional life to think that they can use it as Dr. ALLBUTT did in the mastering of GROTE'S "Greece," of GIBBON'S "Rise and Fall," and of MILL'S "Logic," with "some great work of imagination," and so, almost without a university, attain "the university mind." We hope that our brief notice of Dr. ALLBUTT'S address will lead our readers to study every word of it.

It was a happy thought of the Leeds school to secure an address from Dr. GAIRDNER. He might long ago have abandoned himself to the luxury of his own careful

studies and consulting practice. But he has preferred to deal deeply and seriously with the very fundamental principles of medical education, and devote a large part of his life to personal teaching. His great text at Leeds was a demand for "thoroughness" in all that students do; not that they should "do many things," but "much." Taking advantage of a humorous newspaper account of the invention of a new automatic machine in the form of a "doctor," which, on the deposit of a penny through a chink, is to supply pills and powders for all "the ills that flesh is heir to," he deprecated routinism, automatism, mechanical prescription in medicine, and vindicated the value of living personal observation and opinion. Men are still fain to be led by other men or by one man. A new heresy in medicine, almost as foolish as any of the old ones, is to swear by the dogmatism of a mystic who lived nearly a century ago—to accept his authority and use his medicine in his doses. Dr. GAIRDNER'S noble defence of freedom mocks all such attempts to bind living medicine with such miserable withes. If men will not be bound by HIPPOCRATES in the nineteenth century, they are not likely to call any other man lord, and of all grave and successful physicians who justify this freedom, none speak with more clear right and note than Dr. GAIRDNER, whose rational treatment has reduced the mortality of whole classes of disease to a minimum, and who is well entitled to say, as he so eloquently did say, "That it is the simple truth that at no time in the world's history have the medical advisers of the sick been so little hampered by traditions as at present; at no time have the methods, the formulas, the remedies of past ages undergone more revolutionary changes, and yet at no time have the living influence, the character, the personal status of the physician and surgeon been more adequately maintained than precisely in the latter end of this nineteenth century." He, too, ran a tilt at Mr. WHEELHOUSE'S views of practical teaching; but he was able to say what we fear many teachers cannot say: that as far as his pupils were concerned, he takes care that they shall not be ignorant of measles and other common diseases. We are too much impressed with Dr. GAIRDNER'S lofty demand for personal work and care in making ourselves *thorough* in teaching and in learning medicine to discuss to-day his criticism of the demand for more practical and technical instruction. We may take other opportunities for that, only remarking here that there is no comparison between the necessity for a practitioner being able to recognise and treat measles or scarlet fever and his being able to operate for hernia. The one duty arises immediately and daily, and failure in it involves immediate disaster and discredit. The other arises rarely, and can, in nine cases out of ten, be devolved without discredit on those who lay themselves out for higher surgery.

THE question of leaving Great Britain for other and better winter climates becomes to a large and increasing class a topic of the first importance, which must be faced during the month of October. This month, although on the average almost the wettest of the twelve, is so frequently mild, that patients are tempted to linger at home until it has run its course; but it is generally recognised that November in this country is not to be encountered with impunity or without grave risk by the class interested in the subject of a winter change of residence. The English winter has the following defects, which render an escape from it desirable to many, and a practical necessity to some. It is a season of short days and sunless skies. Though rarely severe in point of cold as compared with many other lands, it presents great fluctuations as regards temperature and moisture; it is, on the whole, somewhat windy, and especially towards the vernal equinox the winds are parching and depressing. Hence for large classes of sufferers open-air exercise is largely impeded or even entirely hindered, colds and chills are frequently caught, appetite and digestion are apt to become impaired, the general health suffers, and in consequence many diseases are aggravated. It is essential for any accurate conception of medical climatology to recollect that our climate does not act injuriously by any single characteristic, but by a combination of characteristics and by their sum total effect upon the organism as a whole, as well as upon any local affection. Popular language attributes all the defects of the English climate to the damp, whereas our rainfall is small compared with many places in favour as health resorts, and the comparatively low temperature usually prevailing in these islands prevents a very large amount of moisture from being held in suspension in the air. Rainfall, evaporation, relative and absolute humidity, temperature, amount of sunlight, direction, force, and distribution of the prevailing winds—all these factors require careful consideration before any accurate estimate of the effects upon health of any given climate can even be attempted.

As regards the classes who, when means and circumstances permit, may with advantage seek a winter change of climate, we may put the facts generally in this way: all those to whom daily fresh air exercise is indispensable, and who are unable to take such exercise unless under favourable meteorological conditions; all those who from any cause are peculiarly susceptible to changes in temperature and hygrometric condition, and who as a consequence of such changes are prone to catarrhs or deep-seated inflammations; all those in whom a succession of wet or sunless days profoundly depresses the mind and the physical energies. A little reflection will show that the diseases coming under these various categories are—phthisis, bronchitis, rheumatism, marked constitutional delicacy, and delayed convalescence either from a surgical operation, a specific fever, or an acute inflammation.

The advantages of change of climate in phthisis have been known from the earliest times and are universally recognised. The subject is one in connexion with which a large literature is rapidly springing up, and is so extensive that little to the purpose could be said in the course of a leading article. Amidst much controversy on the subject, certain conclusions command at least a very general acquiescence. We are all pretty well agreed that change of climate is the most potent means we have of combating pulmonary tubercle; that it can be recommended with any degree of assurance only when the disease is early and in the main uncomplicated; that the failures are more numerous than the successes, but that the successes are considerable in number, often very striking in character, and sometimes occur in unhoped-for cases; that the sea voyage, the high mountains, and bright sunny, bracing, but not too stimulat-

ing or exciting climates, are the various alternatives that present themselves to our choice; and that the selection is still a matter of considerable difficulty and obscurity. One broad and elementary principle may probably be accepted as universally true—that no climate will permanently benefit phthisis unless it permits a large amount of fresh air exercise and acts generally as a tonic to the system.

In some of the other conditions enumerated the choice of a winter climate is a much simpler matter than it is in phthisis. Thus, bronchitis, if there be much cough and secretion, calls for a soothing climate, where warmth and equability prevail —conditions that are found at Madeira, the Canary Islands, the Azores, Nassau in the Bahamas, and many similar resorts. If the secretion be very profuse, such as in cases of bronchorrhœa, a drier climate than the ocean islands will often be desirable, and may be found in many of the sanatoria on the Mediterranean seaboard. Rheumatism, again, has indications that are sufficiently precise. Warmth, dryness, and at least fair equability, are here the desiderata. Egypt, Algeria, and Morocco may be mentioned as fulfilling these conditions. We must remember, in reference to this department of the subject, that if a climate be very warm and dry, it cannot in the nature of things be very equable, since the combination of heat and dryness promotes radiation and necessarily causes a considerable difference between the day and night temperatures and those of sun and shade.

Asthma is a disease for which change of climate is often sought, but such change must always be regarded as an experiment which is to be judged by its results. We are unable to lay down any general laws on the subject, except that the disease is very much influenced by locality, that meteorological features seem to have no constant effect, and that, unlike most respiratory affections, asthma is not aggravated, but often relieved, by the impure air of large cities.

Delayed convalescence and constitutional debility are two conditions for which sea air, whether in the form of the sea voyage or of the marine sanatorium, may be recommended with very considerable confidence, provided in the former case there be neither pyrexia nor great nervous irritability. Strumous children, with weak circulation and a proneness to catarrhs, benefit very decidedly by a sea voyage or prolonged residence at a seaside resort. Mr. TREVES recommends that in such cases places such as Margate should be selected, where large tracts of seaweed lie exposed to the sun at low water, rather than resorts where this feature is absent.

The fashion of wintering abroad must not blind us to the very considerable facilities offered by our own country for the selection of a suitable winter resort. A large number of cases of phthisis will be found to do wonderfully well in the south coast watering-places during the winter. Bath offers attractions to the rheumatic and gouty which are not easily surpassed; Malvern, Tunbridge Wells, Leamington, Llandudno, Southport, and Grange, to mention a few out of many, will be found to yield very good results, as winter residences for properly selected cases.

COLONEL INGLIS, in his report upon the Reformatories and Industrial Schools of Great Britain which has just appeared in the form of a Blue-book, discharges himself from the discussion of any broad questions relating to these institutions on the ground that before his observations could be published the old statutes under which these schools have been managed heretofore would be superseded by fresh legislation. Unhappily the event has not justified his forecast. The two Bills which the Government introduced into the House of Lords dealing respectively with reformatories and industrial schools have both suffered shipwreck, and the questions which they were intended to deal with are still outstanding, having indeed been but little advanced towards solution by the fruitless discussions of the past session. We do not quite share Lord NORTON'S sensitiveness on the score of mingling homeless and destitute children with those who have been charged before a magistrate with some offence; the probably criminal with the accused of crime. The two classes have so much in common that it is probably an over-refinement to attempt to separate them. The case is very different of those juvenile offenders whom a second conviction has qualified for detention in a reformatory. In these instances the presumption of vice is so strong that it is only common prudence to treat them as liable to corrupt other children and to separate them accordingly for education in distinct schools. But between the homeless child whom poverty has thrust into vicious surroundings and the petty offender who is accused for the first time the greatest difference generally is that the one has and the other has not been found out. While, therefore, we do not hold with the excessive multiplication or subdivision of correctional schools, we strongly feel, upon the other hand, that it is a great abuse of the industrial school system that it should be converted into a substitute for the workhouse school, and, if possible, it is even worse that parents should be able to find in the industrial school facilities for getting rid of the burden of their children's support and education. Yet such was the finding of the Royal Commission which recently considered this matter. These are serious faults, which demand a legislative remedy, and one which should be applied without delay. We hope that the pleasing picture which Colonel INGLIS paints this year will not have the effect of blinding the public eye to the defects which his canvas conceals.

As regards the health condition of children in reformatories and industrial schools, the report states that "the health of the schools has been, with a few exceptions, most satisfactory." It is, however, further stated: "The death-rate may seem heavy, but when it is remembered from what a low class the children are drawn, and how many of them come with constitutions enfeebled by hereditary maladies or by poverty and starvation, I think the rate may be said to be satisfactory." While fully admitting the force of Colonel INGLIS'S suggestion as to the effect of the probably enfeebled constitutions of many of the children, we are of opinion that this should be mainly, if not fully, counterbalanced by the effect of the good housing, good clothing, good feeding, and constant care and medical supervision which it may be assumed that these children enjoy. Under these circumstances we find it difficult to agree with Colonel INGLIS that a death-rate which may be broadly said to be nearly double the mean death-rate of all

English children of similar ages, living for the most part under far less favourable circumstances, can be accepted as satisfactory. The tables in the report under notice show that the death-rate among the 22,755 average inmates of the Reformatory and Industrial Schools of Great Britain in 1888 was equal to 5·8 per 1000—to 7·6 in the Reformatory and 5·3 in the Industrial Schools. The report before us does not supply sufficient information as to the ages of the children in these schools, to afford the means for testing these rates in a thoroughly satisfactory manner; but if we assume, which we may probably fairly do, that the bulk of the children are aged between ten and twenty years, we find that the death-rate of all children at these ages in England and Wales in 1888 did not exceed 3·4 per 1000. Judged by this standard, therefore, we find that the mortality of children in these schools in 1888 exceeded the average rate by nearly three-quarters, or by 71 per cent. The rate of mortality among the boys detained in these schools was 5·2 per 1000, against the English average of 3·3; and among the girls it was 8·1, the English average being 3·5. The excess of mortality among these school children was, therefore, far greater among the girls than among the boys. Can this degree of excess of mortality be fairly considered as satisfactory? The subject calls for investigation, and in the first place the statistics of a series of years, with the advantage of more definite information as to the ages of the children, would throw much useful light upon the true cause of this excessive mortality.

Annotations.

"Ne quid nimis."

THE PUBLIC HEALTH DURING THE PAST SUMMER.

THE weekly returns issued by the Registrar-General relating to twenty-eight of the largest English towns, having an estimated population of nearly ten millions of persons, afford the means for judging the condition of the public health during the third or summer quarter of this year. The annual death-rate in these twenty-eight towns during the thirteen weeks of last quarter was 18·6 per 1000, which, although exceeding by 1·7 the unprecedentedly low rate in the corresponding period of last year, was 1·4 below the mean rate in these towns in the third quarters of the seven years 1882–88. The death-rate in London last quarter did not exceed 16·5 per 1000, only slightly exceeding the low rate (16·2) in the summer quarter of last year, and was 2·5 below the mean rate in the corresponding periods of the ten years 1879–88. In the twenty-seven provincial towns, however, the mean death-rate last quarter was 20·0 per 1000, thus exceeding by more than a fifth, or 21 per cent., the rate in London. The death-rate in the summer quarter of the year is, especially in towns, almost directly governed by the mortality from infantile diarrhœa, and it is therefore not surprising to find that the increased mortality in our urban population last summer, compared with the summer quarter of 1888, was mainly due to the greater fatality of this summer disease. The annual death-rate from diarrhœa in the twenty-eight towns last quarter was 2·5 per 1000, against 3·5, 3·3, and 1·5 in the corresponding quarters of 1886, 1887, and 1888. This increase of diarrhœa mortality last quarter was due to the hot summer weather in July; the mortality from the disease, however, fell rapidly after the middle of August. In London the diarrhœa rate did not exceed 1·8, against 1·3 in 1888; while in the twenty-seven provincial towns the mean death-rate from the disease averaged 3·0, against 1·7 in 1888. The excess of diarrhœa mortality last quarter, compared with the corresponding period of last year, was relatively much larger in the provincial towns than in London. It appears, moreover, that if we exclude diarrhœa mortality, the death-rate in our largest towns in the past summer did not materially exceed the unprecedentedly low rate in the summer of 1888; and the same is probably true of the mortality in the whole country. It is especially noteworthy that only 2 deaths from small-pox were registered during the quarter in these twenty-eight towns, of which 1 occurred in Leeds and 1 in Sheffield. The mortality last quarter from each of the other zymotic diseases, except whooping-cough, somewhat exceeded, however, that recorded in the summer of 1888. The most noticeable increase, apart from diarrhœa, was in the recorded deaths from diphtheria, which numbered 678, against 394 in the corresponding quarter of last year. On the whole, the public health last quarter, judged by its mortality statistics, although comparing unfavourably with the exceptionally favourable return for the previous summer quarter, was fairly satisfactory, the drawback being a slightly increased mortality from measles, scarlet fever, and enteric fever, and a marked increase of diphtheria mortality.

THE RULE OF COMPULSORY RETIREMENT OF HOSPITAL PHYSICIANS AND SURGEONS.

THE reasonableness of the rule that requires the retirement of physicians and surgeons after a period of twenty or twenty-five years' service is generally admitted. By this time they are generally in such demand outside as to have but scant time for the discharge of hospital duties, which, if they are to be done well, require, above all things, to be done deliberately. So that, for their own sakes and the good of patients, relief from hospital responsibility and work is generally advantageous. Equally reasonable does the rule appear from the point of view of younger men, who have time to spare and who have gifts for hospital service if the opportunity comes in time. And yet the rule has often appeared to work disadvantageously, and to displace men who were not to be easily replaced. It is not surprising therefore that some hospitals have mollified the rule so as to prolong in a practical way the connexion with officers whose term of duty has expired and who may yet, by their experience and reputation, be of the highest use to the institution. We lately found this to be the case at Norwich, where there is a rule of compulsory retirement, we think, after twenty-five years, or on the attainment of the age of sixty-five. This rule has been made since some of the present staff were appointed. It has been qualified by another, which provides "that three beds shall be assigned to every member of the staff who has retired and become consulting officer, to which he may at pleasure admit cases to be under his control and treatment, and for which he will hold himself responsible." We very recently had the pleasure of seeing Mr. Cadge perform a bloodless, successful lithotrity in a little girl aged four. Even he had never done this operation in so young a female. Had the old rule of compulsory retirement been ruthlessly applied to all, he would have been denied an opportunity of doing what he does so well. In this new rule, we believe Norwich only follows the example of the Leeds General Infirmary, which has a rule to this effect: "That any member of the hospital staff shall retire on the completion of twenty years of office, but that on his retirement he shall be promoted to the position of consulting surgeon, and shall be entitled to the use of six beds, provided that in the aggregate not more than a certain number of beds are so

occupied by the consulting staff." Under this rule Mr. Teale and Mr. Wheelhouse have retired and yet retain a most important connexion with the institution with which they are so honourably associated. We cannot doubt that this is a good rule, or rather a good qualification of the old rule, and that by adopting it hospitals would secure in their staff the double advantage of what Bacon called "young men and men of age," who have their respective advantages, who are calculated to work well together, to correct each other's faults and stimulate each other's virtues.

CANCEROUS AFFECTIONS OF THE VARIOUS ORGANS IN IRELAND.

WE owe a debt of gratitude to the Registrar-General for Ireland for having taken the lead in supplying statistics of the part or organ affected in fatal cases of cancer. We note with satisfaction that one of the results of the publication of these statistics in the Irish report for 1887 has afforded the means for supplying much more complete statistics for 1888. In the report for 1887 the part or organ affected was not specified in 406, or 19·6 per cent., of the 2067 recorded fatal cases of cancer in Ireland; the report just issued for 1888 shows that in only 67, or 3·3 per cent., of the 2003 deaths from cancer in that year was the part or organ affected by the disease not specified. It is needless to say that the value of these statistics will, apart from their increasing completeness, increase year by year as the records accumulate, and it thus becomes possible to watch the rate of increase or decrease of malignant disease of the various parts or organs. There are, however, one or two facts brought out by the Irish statistics for 1887 and 1888 which deserve notice. In these two years the part or organ affected was recorded concerning 3597 of the 4070 fatal cases of cancer—1578 of males and 2019 of females. If we exclude from the female cases 460 cases affecting the breast and 325 affecting the uterus, the numbers affecting all other parts or organs in the two years are found to be 1578 fatal cases of males and 1228 of females. Of these numbers by far the largest proportion resulted from disease affecting the digestive organs, the pylorus, stomach, liver, intestines, and rectum; the cases so classed in the Irish returns for 1887 and 1888 were 846 of males and 823 of females. The cases attributed to the hand, leg, foot, and to other specified parts not separately classified were 214 of males and 167 of females. There remain to mention the cases affecting the head, face, eye, jaw, tongue, lips, neck, and throat; these numbered 518 of males and 238 of females. Thus while the relative numbers of cases affecting the internal digestive organs were 103 of males to 100 of females, those that we may call the external cases, probably due in great measure to injury from violence, affecting the hand, leg, foot, &c., were relatively 128 of males to 100 of females; and the cases affecting the head, face, eye, jaw, tongue, lips, neck, and throat showed the proportion of 218 of males to 100 of females. If we exclude the cases affecting the head, face, and eye, which may be referred in considerable proportion to injuries, and show less irregularity in the two sexes, we find that the proportion of cases affecting the jaw, tongue, lips, neck, and throat is 333 of males to 100 of females. It would be rash to attempt at present to assign the precise causes for this wide range of difference between the sex proportions of the fatal cases of cancer affecting the various parts or organs of the human body. For this we must wait until a larger basis of facts is available for analysis; and we venture to trust that the Registrars General for England and Scotland will see the advisability of supplying information on this important subject similar to that now furnished in the Reports of the Registrar-General for Ireland. We do not, however, hesitate to affirm that the information is important, as it can hardly fail to throw light upon the cause of the development of the disease, as well as upon the causes of its constantly increasing fatality. Should a larger basis of observations confirm the conclusion, drawn from the Irish figures for 1887 and 1888, that while the sex proportion of fatal cancer affecting the digestive organs is nearly equal, the proportion in cases affecting the jaw, tongue, lips, and throat is 333 among males to 100 among females, it would be strange indeed if it were impossible to discover the true explanation of this remarkable difference. Some deleterious influence specially affecting these parts of the human economy more severely in the male than in the female sex would have to be sought. Without attempting to foreshadow the result of the quest of this deleterious influence in the eventuality alluded to above, it would, for instance, be absolutely necessary to investigate in the most thoroughly scientific manner the effect of tobacco smoking upon the jaw, tongue, lips, and throat, which parts, judged by the figures at present at our command, appear to be more than three times as liable to cancerous disease in the male as in the female.

ALLEGED CASE OF ATROPINE POISONING.

AN inquest was held at Morecambe on the 26th ult. on the body of a boy aged eleven, the son of a Rochdale leather factor, who had been staying at Morecambe during the previous fortnight. Deceased walked to Heysham the previous Sunday (the 22nd) with an elder sister, gathering and eating a few blackberries from the roadside. During the following night he was taken ill, suffering from sickness and diarrhœa. During Monday his mother administered at intervals four or five homœopathic belladonna pilules, which, it was stated, had always suited him very well in previous cases of sickness, and one or two of aconite. Deceased becoming no better, medical advice was sought, but he was then in a comatose state, and died the following morning. The symptoms pointing to poisoning, the deputy coroner ordered a post-mortem examination, which was made by Drs. Clark and Glegg, who expressed an opinion that death was caused by some narcotic or irritant poison, probably atropine or belladonna. Dr. Glegg was strongly of opinion that the pilules administered could not have had any such effect, and it was supposed that deceased must, when out on Sunday, have eaten berries of the deadly nightshade, which are said to grow in the vicinity. After a lengthy investigation the jury returned the following remarkable verdict: "Died from atropine poisoning, and although there was no evidence to show how administered, they believed it to be perfectly accidental." Assuming the above statements, which are taken from the *Liverpool Daily Post*, to be correct, there are several questions which it is to be hoped Drs. Clark and Glegg may be able to answer by a full medical report of the case, poisoning by any of the alkaloids, except strychnia and opium, being comparatively rare, and cases of atropia poisoning being specially interesting. Were any pilules similar to those given to the deceased procured and reserved—because homœopathic pilules are well known to contain, not an infinitesimal, but a very decided quantity of aconite, belladonna, &c., and the quantity contained in four or five pilules would be a very important fact in determining the cause of death? Was the sister asked to indicate the locality and the berries? and what was the exact interval between the eating of these and the occurrence of symptoms? Have the stomach and its contents been preserved, and could not an inspection be made now by some skilled analyst, since it is quite possible to extract and identify the alkaloid which is the active principle of belladonna? Were the symptoms markedly those of atropia and not

aconite poisoning? The case furnishes an amount of scientific material which, it is to be wished, may not be lost, but fully utilised for the advancement of toxicology. If the "berries" theory be true, it furnishes another warning to children and their parents.

MEDICAL MISSION WORK IN CHINA AND SYRIA.

WE have often remarked on the importance of medical mission work both in itself and as a factor in the promotion of civilisation and Christianity among heathen nations. Two illustrations are before us as we write: one, the Report of the Medical Missionary Society in China for the year 1888, and the other that of the American Presbyterian Mission in Syria. The former, like the latter, owes its origin and chief inspiration to America, having been founded in 1838 by Dr. Parker of Washington, whose death in January, 1888, constituted an era in the Society's history. At the annual meeting resolutions of a most feeling kind were passed conveying a rare tribute to Dr. Parker's memory as a physician, surgeon, statesman, and philanthropist. Dr. J. G. Kerr succeeds Dr. Parker as President. The Society has a hospital, the Canton Hospital, and several dispensaries. The chief work is done in the hospital, which can accommodate 200 patients. The number of in-patients last year was 1324, of out-patients 6870. The table of surgical operations will give the best idea of the important work done, and the impression that must be made by the officers of the Society. Cholera prevailed and interfered with the work of the hospital, and also with that of the missionaries, who itinerated with medical and religious purposes. Sixty-five cases of stone in the bladder were under treatment in the year, all in men. In twenty-four of these lithotomy was performed, and in thirteen lithotrity. All the lithotrities were successful, most of them being done after Bigelow's method, but five of the cases of lithotomy ended fatally. Catheterisation for retention in men was practised 119 times. One remarkable case of retention of urine in a female from retroversion of the gravid uterus is given. The Bible woman who visited the patient found her somewhat indifferent to her teachings, when she explained her sufferings, and said she had had retention for twenty-five days (?) She went to the hospital on the Bible woman's advice. A female student drew off nineteen pounds of urine with the catheter. She was taken into the hospital. The retroversion was reduced by an inflating or pear-shaped pessary. The catheter had to be used for a month, and the patient recovered. A glimpse like this into the hitherto unexpressed sufferings of millions of human beings, with no law against quackery of the grossest kind, may well quicken the Christian nations in their efforts to enlighten China, and even supply her with some of our superfluity. There is an attempt to teach medicine to a class of eleven young men and three young women. The classes are Chemistry, Theory and Practice of Medicine, Anatomy, and Materia Medica. The latter two subjects are taught by natives. This is not a sufficient curriculum; but in a country with no law to regulate medical practice it is a step in the right direction. Some gunshot injuries were met with in Hainan and dealt with antiseptically. The work of translating medical books has been continued. It is gratifying to learn that half the expenses of the hospital are met by payments of patients and by Chinese subscriptions. The medical work in Syria done by the American physicians of the Medical Department of the Syrian Protestant College, appointed by the Order of St. John in Berlin as the medical attendants of the Johanniter Hospital, is of an equally interesting character, associated as it is with educational and religious work of the very best kind. The hospital in Beirut has received during the past year 491 in-door patients and 8390 patients in the Polyclinique. Our readers know from various communications of Dr. Post in our columns that he brings to his task skill and judgment which, in his native land, would have secured him eminence and wealth. It is work like that of Parker and Post which led the late Lord Beaconsfield to speak of "those sublime men, the American missionaries."

THE "PELLAGRA BACILLUS."

THIS bacterium has been the subject of experiments by Professors Lombroso and Cuboni, representing the Italian, and Drs. Paltauf and Heider, the German, school. Cuboni, it may be remembered, maintains the existence of a bacillus in the maize consumed by pellagra patients, the maize, having previously undergone fermentative alteration. Not only does he profess to have found the bacillus in the maize, but even in the alvine dejections of its consumers. His definition of pellagra is, therefore, this: "a microbian malady, due to a poisoning produced by a pathogenic bacillus." Lombroso's findings, however, were much less confident than those of his compatriot. He, too, found a bacillus in the altered maize, but he failed to detect it in the blood of the pellagra patient, and very rarely found in the intestine. His results have now been confirmed by Paltauf and Heider, who also announce that the bacillus does not produce any toxic principle in its cultures, nor does it, when communicated by inoculation to animals, cause pathological phenomena. The bacillus, in fact, which seems identical with that of the potato is, according to these investigators, "non-pathogenic." The practical upshot of the experiments seems now to be that the maize, owing to a bad system of conservation, undergoes a kind of putrid fermentation, and that from this certain toxic substances are generated, the ingestion of which causes in the consumer a disease, epidemic, but non-contagious, in character. The improved methods of treating the maize, particularly the use of the drying apparatus (*essiccatoio*), have greatly diminished the pellagra following the consumption of the grain. Indeed, the universal introduction of the methods above referred to is confidently expected to extinguish the disease in Upper Italy.

SERIOUS CHARGE AGAINST A MEDICAL MAN.

DR. JOHN EADIE, of West Coker, was recently brought before the magistrates charged with having, on Aug. 22nd last, committed an assault on the wife of George Chick, a shepherd, with intent to ravish her. From the evidence it appears that Dr. Eadie had attended the woman for six months for prolapse and ulceration of the womb, and that from time to time he had introduced pessaries. On the day in question he visited the patient, and, according to her statement, assaulted her. She deposed that she did not scream because "she was so taken by surprise." But this evidence she practically neutralised by saying that she was strong enough successfully to resist Dr. Eadie. The door of the house and the chamber window were open at the time, and a neighbour was sitting outside who could easily have been appealed to. Further proof of the groundlessness of the charge was adduced by the evidence of Amelia White, the neighbour referred to. This witness swore that the woman Chick did not complain to her until about 11 o'clock at night—the assault having, it was alleged, been committed about four in the afternoon. Moreover, Mrs. White averred that Chick had told her to say that she had complained to her about ten minutes after the doctor left. In addition to the want of confirmatory evidence, rebutting testimony was forthcoming The woman was medically examined by Dr. Adams of Martock, who testified to the physical disorder of the uterine system.

This evidence was of such a character as to render an assault of the nature alleged in the highest degree improbable. The magistrates who heard the case placed themselves in a somewhat unenviable position, for, at the close of the case for the prosecution, they said that as the evidence then stood they had made up their minds to commit; whereas after Mr. Watts, defendant's legal adviser, had addressed the court and called his witnesses, the chairman said the majority of the magistrates were of opinion that there was not sufficient evidence to commit. Consequently Dr. Eadie was liberated. The defendant's counsel suggested that the woman made the charge whilst suffering from "hysteria and hallucination." The history of this case is unfortunately not singular; charges of like nature have often been preferred against medical men. It is quite clear that neither committal nor conviction should follow unless there is strong corroborative proof, because in such cases the circumstances almost necessarily place the victim in a defenceless position—defenceless except for what he can rely upon from his professional reputation. It is matter of regret that in Dr. Eadie's case the indictment was made under the Acts 24 and 25 Vic., Chap. 100, Sec. 38. If the proceedings had been taken under Sec. 48-52, Dr. Eadie could have been called as a witness for his defence, but as it was, his mouth was closed. We heartily sympathise with Dr. Eadie, and at the same time congratulate him on the issue of the charge made against him. He has suffered what every member of the profession is liable to in the exercise of a noble calling. It is fitting that every recompense should be made him in addition to the public and judicial exculpation which he has received

ACCIDENTS TO WORKMEN.

AMONG the many interesting discussions which have taken place at Paris during the period of the Exhibition, not the least is that on State provision against accidents to workmen. The sentiment generally exhibited by those who took part in the debate was one of admiration for the German system, by which the compensation is paid with absolute certainty to the injured workman. The annuity is paid in the first instance by the employer. If he fails, the corporation of the trade takes the responsibility, and continues the payment. Should the corporation fail, the State itself undertakes the payment. A large class of accidents is due to faults of machinery. It must be hoped that as time goes on these will be more infallibly detected and removed; for many such often no one in particular is to blame. But the prevailing feeling of the Congress was that as society reaped the advantage, it should bear the cost of any injurious result. Mr. Adolphe Smith referred to the case of those working for sweaters, and who sustained accidents without claiming compensation, believing that the sweaters were too poor to pay. In answer to this, it was said that in France the worker, though obtaining his wages through the sweater, would be able to claim wages from the person who employed the sweater. The German scheme is a gigantic one, as may be gathered from the following figures given in *The Times*. By this scheme payments are made through trade corporations:—"Germany had now 62 trade assurance corporations, divided into 366 sections, necessitating 319,453 inspections, and insuring 3,861,560 workers, whose wages were equal to 2,389,349,500 marks. The corporations had paid 5,373,496 marks for 15,970 accidents verified in the year 1887. The minor accidents, treated as illness because the victim was cured in less than thirteen weeks, amounted to 90,031. To the above figures should be added 259,977 railway servants and 6,978,579 agricultural workers. The latter had been compelled to insure by the law of the 5th of May, 1886." The natural objection to such a system is the danger of developing carelessness among men and even among employers; but this, so far, is not supported by facts. The amount paid by employers is said to be less than under a system of insurance. It was generally recognised in the Congress that inspection of factories was best managed in England, especially with regard to the medical examination of children, and all matters relating to hygiene. The great object ought to be to prevent accidents rather than to compensate for them; but meantime compensation is a most just provision. Madame Tkatcheff gave the principles of a proposed law now under consideration by the Russian Government which contemplates compensation in cases of illness due to unwholesomeness of employment.

ENTERIC FEVER AND POLLUTED WATER AT SUTTON-ON-HULL.

ENTERIC FEVER is prevailing at North Ferriby and at Sutton-on-Hull in the Sculcoates rural district. According to Mr. Walton, the medical officer of health, the outbreak at Sutton is due to the contamination of a well used by the residents of a terrace, the pollution being due to obvious soakage of filth. The water has been analysed and found to be impure, but the owner of the well declines to accept the analyst's decision, and hence a sample is to be submitted to a London analyst. This being the case, the question was "adjourned for one week." It is to be hoped that in the meantime the sanitary authority have seen that a water-supply above suspicion is being provided for the inhabitants of the terrace, and also that, in case a favourable chemical report is received as to the recently collected sample, they will remember that the medical officer of health actually saw excremental filth making its way into the well, and that it was the water of several weeks before the date of their meeting, and not that which was recently collected, that must have occasioned the disease, if the water was at fault. In short, the question they have to consider is not so much one of the chemical constituents of a single sample of water collected after the occurrence of enteric fever, but rather whether a water which before the outbreak was obviously fouled runs the chance of being again contaminated.

THE PRINCIPLE ON WHICH MEDICAL MEN SHOULD BE REMUNERATED.

DR. G. WILSON, of Leamington, speaking in Section I., "Sanitary Science and Preventive Medicine," of the Sanitary Congress, travelled over a wide field, from unthrifty marriages and marriages of persons unsound in health or constitution, to the principle of payment of medical men, maintaining that so long as the family medical attendant is paid to attend only on people when ill, and not to conserve the health of the household, there will be a constant drag upon public health progress. Such wide subjects cannot all be discussed in one paper. The subject is a very difficult one. There is much to be said for the public and for individuals paying medical men to *keep* them well. But, as Dr. Wilson said, all our experience of that system is discouraging. The most eminent of our health officers, men worth more "than armies to the public weal," get a remuneration that would not be accepted by a second or third-rate private practitioner, and then often are treated with scant respect. The payment of club doctors, who are paid without reference to illness, is a scandal unworthy of any respectable and intelligent individual of the working-class. Similarly, we could not expect any adequate remuneration from even well-to-do people. It is only the experience of sickness that teaches the value of the healer of the sick. Gratitude is developed, and the office of the physician or

surgeon comes to be appreciated. The difficulty of realising obligation to a medical man who simply averts disease is too great to the average practical Englishman. The enjoyment of health is assumed as a natural right—not to be paid for. The very instructions and prescriptions of the physician are lightly esteemed till sickness arises, and the advantage of observing them is experienced, and then the "physician is honoured" by men "for the uses" they "may have of him." Dr. Wilson will not deny that the public spirit and benevolence of medical men make them the great promoters of sound sanitary legislation. Take, for example, their advocacy of vaccination, by which they lose thousands a year, and yet are abused by weak people for doing so with a selfish motive.

THE HOWARD SOCIETY'S REPORT.

IT cannot be said of John Howard that the good he did was "interred with his bones." Apart from the reforms in which he had himself an active share, and which remain as enduring precedents in prison management, the Society named after him continues to labour effectively in the work which he began. Its report for the present year will repay careful perusal. Among other matters it touches on a subject of some importance in referring to the serious and even fatal accidents incurred by some of the inmates of convict prisons in consequence of the dangerous character of their work. Their efforts to effect a change in this particular would appear to be the more needful if, as in a case quoted, coroners' juries are apt to find themselves in some difficulty from the fact that all evidence by gaol officials has to be given in presence of the governor or other superior officers. The natural effect of such restraint may be conjectured. On another page of the report attention is directed to the need which still exists for some system of classification in workhouses and pauper hospitals. The distinction aimed at is one which would separate (1) the vicious or disreputable poor from those who have simply been unfortunate in their worldly circumstances, (2) the sick from fellow inmates whose noisy habits are prejudicial alike to their comfort and their chances of recovery. While the advantage of trained nursing now obtainable in parish infirmaries is felt and acknowledged, it is pointed out, with evident reason, that this in itself can merely palliate the evils occasioned by otherwise defective regulation. It should certainly be possible, in the commodious and well-furnished infirmaries of the present day, to apply such a measure of selection as will guarantee the necessary comfort of patients.

TOBACCO-SMOKING AMONG WOMEN.

TOBACCO-SMOKING, in this country at least, has till recently been regarded as one of the peculiar privileges of the male sex. Of late years, however, the habit has undergone certain important changes as regards the extent of its influence. It has attached adherents by the hundred from among the most youthful of the community, and it has, we might also say, in a great measure changed its sex. Many men, and these as capable, as active, and as worried as their fellows, have always been, and still are, found among the non-smokers; while, on the other hand, a belief seems to be growing that women are largely adopting tobacco in its more æsthetic forms as a feminine perquisite. To its therapeutic charm as an aid to digestion, a soother of worries, and a mild hypnotic, is added its alleged faculty of rendering women more companionable to their husbands or brothers who smoke. On such grounds its wider extension as a social custom has been strongly advocated by some, while others again repudiate it with equal warmth as a veritable poison of domestic womanhood. The question, indeed, is incapable of settlement on purely physiological grounds. It may be freely granted that tobacco does in some degree yield that artificial nerve-rest which is claimed for it; but this will not suffice to silence objection, for its use by the smoker is more than a mere therapeutic method. Like every other luxury, it carries with it something of the slavery of indulgence, and this to an extent not known in the case of the simpler restoratives. While, therefore, we admit that its moderate use is in many instances not only practically harmless, but even beneficial, we cannot allow that its general adoption is at all necessary or likely to prove advantageous. What is true regarding its effect upon men is even more applicable to its influence on women. The companionship of the sexes has, in our opinion, little to gain from the fragrant weed. Concord of the kind suggested is, after all, but a gross bond of union, and the finest common influence we would say is here, as in many other things, not that of "like to like," but of "like in difference."

A PROPOSED MIDLAND UNIVERSITY.

AS a result of the recommendation of the Royal Commission on Higher Education in London that the existing university should so modify itself as to become the representative of the teaching colleges and medical schools in and around the metropolis, or else that a new local university for London should be formed, a meeting is summoned for a very early date in Birmingham of those who are anxious to secure a university for the Midlands on lines similar to those on which the Victoria University has been founded. As any scheme which may be adopted in London to carry into effect the recommendations of the Commissioners will practically put the government of the London University into the hands of London teachers, and provincial interests will thus necessarily take a secondary place, we cannot but feel that there is some reason for the foundation of a Midland University.

INLAYING PORCELAIN IN TEETH.

ONE of the prettiest and most artistic of dental operations for restoring to its pristine beauty a partially decayed tooth is the substitution of its carious portion by a porcelain inlay. We are indebted to Dr. How for having greatly improved the *modus operandi* of this not altogether new course, and bringing it within the region of the practical. Taking, for instance, the somewhat common case of a central incisor requiring filling upon the labial surface close to the gum edge, the cavity is deepened, and with a suitably sized engine burr made perfectly cylindrical, the base of the cavity being left as flat as possible. This being accomplished, a small portion of an artificial tooth, or special sections expressly manufactured for this purpose, which matches the natural one in colour, is mounted by means of shellac on a copper point rotated by the dental engine, and turned down to the required diameter by friction against a corundum file. The section or inlay should then accurately fit the cavity prepared in the natural tooth, and is fastened in position with sandaric varnish or very fluid white stopping. After this is set the surface of the inlay is ground to a proper contour and polished. Should the cavity be oblong two inlays are required, which are fitted separately, and then jointed at the mesial edges, so that the interspace is almost unnoticeable. The applicability of this method is necessarily restricted owing to the varying shape of the cavity; but for many cases of caries of the masticating surface of molars and the buccal surfaces of these and of bicuspids it is useful, though its greatest value is in the case of cavities in conspicuous positions, as in the instance above cited. In such a case it stands in very favourable comparison with any other

material the dental surgeon has at his command. Amalgam has a ghastly colour, and, moreover, turns the tooth blue; white stopping has only an ephemeral existence; gutta-percha, subject here to friction, soon wears away; and gold—well, whose eyes have not been offended by seeing an otherwise pretty face marred by a glaring mass of auriferous metal?

CURIOUS INQUEST REPORT.

IN the *Kensington News* of Sept. 21st is a description of an inquest held by Dr. Diplock on the body of a child aged about twelve months, found dead in the Grand Junction Canal. A brick was tied round the neck and the body was quite naked. Death had been recent, as the corpse was not yet cold. A medical witness gave it as his opinion that the cause of death was convulsions, and that the child must have been dead when thrown into the water, and the jury endorsed this view, and returned a verdict accordingly. It may be that the newspaper report before us is inaccurate or incomplete. The fact of a brick being tied round the neck raises at least the presumption of foul play, and certainly the evidence should be very convincing to warrant an alternative theory. The signs of death from convulsions are those of asphyxia, the mode in which death is caused by drowning. We are not in possession of knowledge sufficient to enable us to say positively from post-mortem signs alone that convulsions were the cause of death in any given case. The mere fact of water in any quantity being absent from the stomach or lungs does not prove that death was not due to drowning. This applies with greater force in the case of infants. If death was due to convulsions before the child was thrown into the water, what reason was there to dispose of the body in this way? The wish to be free from paying the funeral expenses would surely be overbalanced by the fear of a charge of murder. We trust that some further explanation will be given in this case; for, as at present reported, it is sadly unsatisfactory.

THE REDUCTION OF HERNIA DURING COUGHING.

IT is an undoubted fact that coughing will produce or bring down a hernia; it is therefore somewhat surprising to hear that coughing may be useful in the reduction of herniæ. M. Vandenabeele, however, has frequently found that herniæ which had resisted attempts at reduction by taxis alone yielded when the patient was directed to cough during the manual efforts to compress the sac. M. Vandenabeele's observations included both inguinal and femoral herniæ, and were not confined to either sex. He believes that during the act of coughing the hernial ring dilates somewhat, and that if well-directed taxis is employed just at the right moment most cases will yield.

THE SALE OF HORSE "BEEF."

HOWEVER desirable it may be in exceptional circumstances of siege or famine to have in our midst available for food a constant supply of horseflesh, there are few persons who will not hail with satisfaction the advent of the recent Bill for regulating the sale of this commodity. Custom has, not without reason, assigned to the flesh of the sheep, or even pig, a higher market value than that of their equine cousin. It is true that the latter contains no really injurious ingredients, and that it is, on the contrary, nutritious, and fairly digestible, but it is also necessarily inferior, as being the tissue of a worked and driven animal, and consequently tough and liable to be loaded with excretory products. It is probable that no small proportion of the cheap so-called beef commonly exposed on the stalls of some salesmen is genuine horseflesh, and that not of the best quality. In our day no healthy and active roadster need fear the pole-axe. His vital powers have a much higher value than his carcase. Consequently we need hardly expect to find this kind of "beef" in prime condition, if indeed it is free from disease. The Act just passed provides that the purchaser shall, at all events, be shown by ample advertisement what was the living shape of the meat he buys. The horse in life will remain a horse in death. A system of regular inspection will guarantee as far as possible the protection afforded by the Act, and the question of a choice of food will thus be put to the public in its plainest terms.

OLIVE OIL TREATMENT FOR GALL-STONES.

DR. KISHKIN has published a paper in the *Meditsinskoë Obozrênië* on the employment of olive oil in large doses in cases of gall-stones, a form of treatment which has been especially recommended by certain American physicians. His observations were made on three patients suffering from gall-stones in Professor Cherinoff's wards in Moscow. In one case only were calculi brought away. These were greenish and somewhat soft. The patient did not improve at all in health after their removal. It was found that similar stones could be obtained by giving olive oil to any person suffering from a scanty secretion of bile; and the stones on examination proved not to be biliary calculi at all, and contained no cholestearin, but consisted of oleic, palmitic, and margaric acids with lime soap. They were evidently produced in the bowel by the olive oil, therefore Dr. Kishkin thinks it is a mistake to attribute to the American method any effect upon biliary calculi.

HUNGARIAN MEDICAL SCHOOLS.

AT Clausenburg the new rector, Professor Klug, in an important address delivered on the occasion of the opening of the session on Sept. 8th, dwelt upon the necessity for more provision for medical teaching for Hungarian medical students. At present there are only two Hungarian Universities—Buda-Pesth and Clausenburg. He mentioned that the proportion of medical schools to the population is only 1 to 7,750,000, a smaller proportion than in most other European countries, the others being Austria (1 to 3,333,333), Germany (1 to 2,250,450), France (1 to 1,541,666), Italy (1 to 1,355,237), and England (1 to 1,095,217). He also calculated the average number of medical students to each university as 670 in Hungary, while in Germany it is only 160. This excessive number of students is very detrimental to practical work, for it is impossible for all of them to get satisfactory clinical experience.

DEATH IN A BATH.

A GENTLEMAN named Chapple was recently found dead in his bath, having been killed, it is believed, by fumes generated by a geyser employed for heating the bath water. It is well that the public should be warned against the danger attending the use of geysers, unless proper means of ventilation be carried out. Whilst the water is being heated an enormous amount of gas is consumed, and the products of combustion must seriously vitiate the atmosphere in a small confined space, such as bath-rooms generally are. Then, too, there is a possibility of the gas escaping unburnt. This, however, would probably be recognised by the smell, and so the danger averted. Every geyser should be fitted with a ventilating pipe. The latter should not be carried out of doors, as the wind may blow back the fumes into the bath-room, but should be conveyed into an adjoining corridor or large room. Further, we recommend the precaution of having the bath-room door open whilst the water is being heated. We have it on

authority that ordinary gas jets are preferable to Bunsen's burners. The best apparatus with which we are acquainted is one which is so constructed that if the water-supply fails the gas flame is reduced to a minimum, thus preventing an explosion of steam should the water come on again, and other serious consequences. It is also furnished with a ventilator.

PLAGIARISM.

IT is, we believe, happily a rare thing for a contributor to this or any other medical journal to adopt as his own "original" contribution the writings of another author. Such, however, we regret to say, has been the case with respect to a paper contributed to these columns by F. W. Allwright, M.D., L.R.C.S.I., entitled "The History and Use of Anæsthetics in Midwifery" (1889, vol. i., pp. 983, 1239; vol. ii., p. 589), which, as our contemporary the *Medical News* (Philadelphia) points out, is practically a transcript of certain pages of the valuable article upon that subject contributed to "Hirst's American System of Gynæcology and Obstetrics," vol. i., by Dr. J. C. Reeve. The first volume of the "System" had been in our possession many months, but had not come up for critical notice, as we felt it would be more convenient to review the work as a whole, after the issue of the second volume, which has lately come to hand. Hence our failure to recognise the near identity of the two articles in question. We have communicated with Dr. Allwright, whose reply we subjoin, and who admits that his paper "obtained its foundation from" Dr. Reeve's article, but who does not seem to be aware of the gravity of the charge of plagiarism which has been fully substantiated against him. Nor does he even apologise to us for having used our pages as a medium for the publication of his unacknowledged transcript. We therefore feel bound to notice the matter thus publicly, and to express to our readers and also to Dr. Reeve our regret that the paper in question appeared in our columns. It is obvious that every journal must have complete confidence in its contributors, and that it is practically impossible to guard against such a practice as that referred to, which for the credit of our profession is, we are sure, of unusual occurrence.

"*To the Editors of* THE LANCET.

"SIRS,—In answer to your favour, the article mentioned obtained its foundation from the American 'System of Gynæcology,' but it was not intended to be a copy, nor, I think, is it. An article in 'Buck's Handbook of the Medical Sciences' contains similar facts upon the same subject, as, indeed, must any other history of the same subject. I am very sorry if an objection has been raised to the article appearing in print. I have practised both the method of administering chloroform and also that of ether which is suggested in the article for some time. Perhaps you will offer my apology, and that any offence against Dr. Hirst was unintentional.

"I am, Sirs, yours obediently,

"Brighton, Sept. 29th, 1889." "FRED. W. ALLWRIGHT.

ALCOHOL IN DISGUISE.

THANKS to the folly of mankind, the position of alcohol as a mischief-worker and destroyer of health is at least as eminent as that which belongs to it in virtue of its right and judicious use. We do not need to remind our readers that it has for long wrought, probably more for evil than for good, under other names than those under which we in this country recognise its familiar combinations. Under a variety of titles it exerts its influence as the potent body of the various liqueurs so common on the Continent. These contain, it is true, other ingredients of more or less stimulant character, but they owe their highly intoxicant qualities without doubt to the presence of a large percentage of alcohol. A fact which is not so generally known has, however, been brought to light in some recent returns, which prove that such apparently harmless compounds as "bitters" and "tonics" are also commonly alcoholic in a high degree. Samples examined have revealed the presence of alcohol to an amount varying from 20 to over 40 per cent. Of the legion of adulterations more or less poisonous which have been from time to time introduced into intoxicating beverages our space will not permit us to speak. It is probable that in this case the real stimulant is often the lesser evil. In the presence of such evidence as this, there can be no question that the machinery of official inspection must be made to work with considerably greater nicety than hitherto, if even one desirable end—the purity of known intoxicants—is to be assured. A somewhat simpler task, though till recently but little suspected, also presents itself to them, and to the too-confiding public—this is the detection and exposure of the fraud implied in selling strongly-intoxicant "non-alcoholic bitter tonics."

MEETINGS OF THE MEDICAL SOCIETIES.

THE Royal Medical and Chirurgical Society will hold its first meeting on Tuesday, Oct. 22nd, and the Clinical Society will commence on the following Friday, both being held in the new home of the former Society in Hanover-square. The new large meeting-room there will not be in a sufficient state of completion to be used, but accommodation will be provided in one of the new rooms of the Library. The Pathological Society will meet on Nov. 5th, and the next sitting of the Obstetrical Society will be on the 6th of that month. The Session of the Medical Society of London commences on Oct. 21st; the Lettsomian lectures will be delivered by Mr. Edmund Owen, the Annual Oration by Dr. E. A. Sansom; the subject for the Fothergillian gold medal for March, 1890, being "Peripheral Neuritis," and that for March, 1891, the "Temporary and Permanent Mental Derangements which follow Surgical Procedures." The Ophthalmological Society will meet on Oct. 17th.

EPIDEMIC OF ENTERIC FEVER AT ST. HELENS.

A VERY serious epidemic of enteric fever is prevailing at St. Helens, in Lancashire. Two hundred and fifty cases have within the last three months been notified to the sanitary authority, and it is estimated that about fifty more cases have occurred. In his last fortnightly report, Mr. McNicoll announced that sixty-five fresh cases and six more deaths had occurred, the total mortality having thus reached forty. The infectious hospital is more than full, and nurses are now being engaged to visit and care for groups of sick persons in their own homes. The cause of this large prevalence is by no means clear. By some it is put down to the tub system of excrement disposal, but it hardly seems likely that such a system, even if neglected, can be made accountable for an epidemic which is so widely diffused as the one under consideration. Tub closets, if a cause of nuisance, act as a rule only as a danger to health in the immediate vicinity in which they are situated.

A CORONER'S DECISION.

ON Sept. 20th, a strong healthy young man named John Owens was found dead in bed at Broughton-road, Dalton-in-Furness. On the evening previously to his death he had partaken of a hearty supper of bread and cheese and tea. A brother who slept with him could not say whether he was alive or not when he left him in bed in the morning. Mr. Plant declined to give a certificate of death, but the coroner on making inquiries issued his order for burial, stating that the deceased died from natural causes. Mr. Plant has publicly objected to the coroner exercising his jurisdiction in this

summary manner, and, if the report of the case be true and complete, we think he is fully justified in doing so, as the case was essentially one requiring complete investigation. There are cases in which the life history of the deceased, taken with other facts, is sufficient to warrant the coroner in declining to hold an inquisition, and in such cases it would be culpable to waste the public funds. On the other hand, in cases like the present, it is not only expedient but obligatory that an inquest should be held and a post-mortem examination made.

CAUSE OF GASTRIC DISTURBANCE IN PHTHISIS.

DR. GRUSDEFF suggests that the gastric disturbances so frequently associated with phthisis may be, in part at least, due to the copious night sweats, and that the indigestion so often met with in soldiers may very probably be connected with the large amount of perspiration occasioned by their long marches and heavy fatigue duty. He has found by a series of experimental observations that when a large amount of perspiration is induced in healthy subjects, the acidity, the quantity of free hydrochloric acid, and the digestive power of the gastric juice are diminished, and also that the quantity of the fluid secreted by the stomach is less than under ordinary circumstances. These effects, too, are not so transitory as might be imagined; their extent and duration depend upon the condition of the individual, and on the amount of the perspiration. Under some circumstances they persist for twenty-four hours. No effect appears to be produced upon the pepsin of the gastric juice or upon the acids of the urine.

SIR W. B. DALBY.

WE regret to learn that Sir W. B. Dalby has been confined to his bed for the past three weeks from synovitis of the right knee-joint following a sprain. We are glad to be able to state, however, that a turn for the better has taken place, and that the fluid is being rapidly absorbed. Mr. T. Pickering Pick is in attendance, and thinks that his patient will in a week or two be convalescent.

THE SANITARY STATE OF THE GOVERNMENT OFFICES.

NEWS often travels by a somewhat circuitous route; and we are now informed, through the *Northern Whig* office, that renewed complaints are being made as to the sanitary state of some of the Government offices in Whitehall, where several cases of typhoid fever are alleged to have taken place during the last few months, and where the drains are said to be in a very unsatisfactory state. The two offices especially referred to are the Local Government Board and the India Office. There is also complaint as to the "accommodation" of the Government officials, and the blame appears to attach primarily to the Office of Works.

REPORTED DEATH UNDER NITROUS OXIDE.

THE death is announced of Lady Milne, wife of Admiral Sir Alexander Milne, of Inveresk, Midlothian, who is stated to have "succumbed to the influence of 'gas' in a dentist's shop in Edinburgh, where she had gone, in company with her husband and daughter, in order to have a tooth extracted. After the administration of the anæsthetic she never recovered consciousness, the cause of death being presumably due to weakness of the heart." It will be interesting to hear further details concerning this sad event, the number of fatal cases on record being extremely small.

PREVENTING A POST-MORTEM EXAMINATION.

AT an inquest recently held at Farnham, Surrey, it transpired that one of the witnesses (we presume a relative of the deceased) had forbidden a medical man to make a post-mortem examination, although the coroner had issued orders for such. The witness in question asked the coroner if it was not imperative for the doctor to produce his authority when required. The matter ended with the coroner censuring the witness in question. There can be no doubt that the latter acted illegally in obstructing the medical man in the exercise of his duty. At the same time, we are of opinion that the doctor should be prepared to produce the coroner's order if demanded.

DR. BURDON SANDERSON.

DR. BURDON SANDERSON has been suffering from a local inflammatory affection, which has kept him to his room for some weeks. He is now practically convalescent, but has been advised to take a holiday away from home for the present, and will probably be unable to resume lecturing until after Christmas.

DOCTORS IN THE FRENCH CHAMBER OF DEPUTIES.

THE following list of medical men successful as candidates for the Chamber during the recent election in France is given by *La France Médicale*, No. 113. Twenty out of the twenty-two are Republicans, and the number is expected to be doubled by the second ballot. Ain: Dr. Herbet. Allier: Dr. Gacon. Alpes (Basses-): Dr. Isoard. Alpes-Maritimes: Dr Th. David, dentist at Paris. Corrèze: Dr. Labrousse. Dordogne: Dr. Theulier. Drome: Dr. Chevandier. Finistère: Dr. Le Borgne and Dr. Clech. Garonne (Haute-): Dr. Mandeville. Gironde: Dr. Alcée Froin. Hérault: Dr. Vernhes. Loiret: Dr. Viger. Lot: Dr. Rey. Marne: Dr. Thomas. Nièvre: Dr. Ducoudray. Pas-de-Calais: Dr. Haynaut. Pyrénées (Basses-): Dr. Quintaa. Rhin (Haut-): Dr. Grizez. Saône-et-Loire: Dr. Lucien Guillemant. Tarn: Dr. Compayré. Vendée: Dr. Bourgeois. The last Chamber contained fifteen medical men.

DANGERS OF CELLULOID ARTIFICIAL EYES.

DR. MEURER, of the Lyons Ophthalmic Clinic, has published a paper warning medical men against the practice of ordering their patients who may require artificial eyes to get those made of celluloid. Such eyes are cheap, it is true, and have a good appearance. At first, too, they seem to suit very well, but after three or four months they appear to undergo some chemical change and set up a serious amount of irritation. He has repeatedly seen this inflammation disappear on the removal of the celluloid eye by means of simple antiseptic treatment; reappearing, however, as soon as the old eye was put in again, but remaining absent if a glass eye was substituted.

METROPOLITAN HOSPITAL SUNDAY FUND.

WE are glad to learn that this fund has now reached the sum of £41,600, an amount which is just £1000 in excess of the best collection in years past. This is a very satisfactory fact, and one that detractors of the fund will do well to consider.

"THE ELECTROPATHIC AND ZANDER INSTITUTE: A PROTEST."

WE are informed by our solicitors that the Medical Battery Company, Limited, have given formal notice of discontinuance of the action brought by them against the Proprietors of this journal for libel (*vide* THE LANCET, April 20th, 1889, page 804).

THE report on the composition and quality of the metropolitan water-supply during the month of August, by Messrs. Crookes, Odling, and Meymott Tidy, shows that of the 175 samples examined two manifested a "very slight turbidity." The remaining 173 samples were found to be clear, bright, and well filtered. The improvement in the London waters apparent in July was well maintained during August. Dr. Frankland, in his analysis, states that, taking the average amount of organic impurity contained in a given volume of the Kent Company's water during the nine years ending December, 1876, as unity, the proportional amount contained in an equal volume of water supplied by each of the Metropolitan Water Companies and by the Tottenham Local Board of Health was:—Kent, 0·4; New River, 1·1; East London, 1·2; Colne Valley, 1·3; Tottenham and West Middlesex, 1·6; Southwark and Grand Junction, 1·8; Chelsea and Lambeth, 1·9.

THE Italian Pharmaceutical Association opens its second general Congress in Rome at the close of the present week. The members, upwards of 3000 in number, will be largely represented, many of the leading pharmacists from Turin to Palermo having signified their intention of assisting at the proceedings. Besides discussions on the new edition of the "Pharmacopœia Italica," on the status of the profession, and on its claims to recognition by the Government, the programme will include the special consideration of the higher culture of the pharmacist, for which object the universities will be memorialised to grant greater facilities; while, for the possessors of academic qualifications, the Ministry of Health will be approached with a view to their being made eligible for appointments in the department of State medicine, especially as directors of laboratories of chemistry in its application to public hygiene.

A SERIES of four demonstrations on the subject of Bacteriology are about to be given in Glasgow, by Mr. Ernest Maylard, to practitioners. They will be held in the Pathological Theatre of the Western Infirmary, on Tuesdays and Fridays, commencing on Friday, Oct. 18th, at 2 o'clock. They will be open free to all medical men on intimating to the superintendent of the Western Infirmary their desire to attend.

AT the meeting last Tuesday of the London County Council, on the motion of Dr. Longstaff, it was agreed, "That it be an instruction to the Sanitary and Special Purposes Committee to report to the Council as to the desirability of establishing public slaughter-houses throughout London, and as to the facilities which such a system would afford for the better inspection of the meat-supply."

MR. H. N. MILTON, medical officer at the Kasr-el-Aini Hospital, Cairo, informs us that Porro's operation was performed in the hospital on Sept. 5th. The child was extracted alive, the uterus removed, the pedicle tied with an elastic ligature, and fixed to the abdominal wound. Death of the mother occurred on the third day from septic peritonitis.

THE Gresham Lectures on Heredity or Inherited Characteristics will be delivered on October 8th, 9th, 10th, and 11th, at 6 P.M., by Dr. E. Symes Thompson, at Gresham College, Basinghall-street, E.C. The lectures are illustrated by diagrams.

DR. J. S. CAMERON, medical officer of health for Huddersfield, was on Wednesday last appointed medical officer of health for Leeds, at a salary of £700 a year and allowances, in place of Mr. Goldie, resigned.

AS will be seen in another column, the Committee for the proposed Voluntary Examination in Shorthand for Medical Students have made arrangements to hold this examination on October 11th. It will be interesting to observe to what extent the pursuit of this subject has been followed by those who are entering upon a medical career or who are already students of medicine.

IT is announced from Vienna that an "Anglo-American Medical Association" has been formed in that city (offices, 12, Landesgerichts-strasse), with the object of forming a reunion among the numerous English-speaking medical men who go there for study, and providing them with every information. Such an office, properly directed, should prove of great service.

THE French Congress of Surgery will commence its sittings on Monday next, the 7th inst., in the large amphitheatre of the Faculty of Medicine, under the presidency of Baron Larrey. The serious business of the Congress will begin on the following day.

THE sudden death on Wednesday last is announced of Mr. R. E. Power, L.R.C.P. Lond., L.R.C.S. Edin., the Governor of Woking Female Prison. Mr. Power was for many years medical officer of the Portsmouth convict prison.

MR. JONATHAN HUTCHINSON, jun., F.R.C.S. Eng., has been elected Assistant Surgeon to the London Hospital, in the vacancy caused by the resignation of Mr. Couper.

THE Harveian Oration will be delivered at the Royal College of Physicians on Friday, the 18th inst., at 4 P.M., by Dr. James E. Pollock.

DR. DAVID W. FINLAY, F.R.C.P., has been appointed Consulting Physician to the Royal Caledonian Asylum, in the room of the late Dr. G. Owen Rees, F.R.S.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The British Food Section.—International Free Education Congress.

THAT we must eat to live and not live to eat is an excellent maxim; but, like many other hard-and-fast principles, it is exposed to inconsistent compromises when introduced into actual practice. In visiting the great galleries, the immense stretch of space allotted at the Exhibition to all that is embraced within the generic term "alimentary products," grave doubts will be entertained as to whether we do not live to eat instead of eat to live. The truth presumably lies somewhere between the two propositions; and, though we must eat to live, it is very certain that if eating is not rendered pleasant, we shall not live well. Prominent among the purveyors of food to the world, and acting evidently according to the middle course just suggested, may be mentioned the numerous exhibitors in the British Food Section. It is a curious fact that although France is essentially the country for *bouillon*, yet it is in the English section that the greatest number of broths are exhibited. And here a word of praise must be accorded to the displays made by Messrs. Brand and Co. with their essences of meat, peptones, meat lozenges, and other preparations useful in cases of prostration; as also to the various meat extracts prepared by Baron Liebig, Messrs. Mason and Co., Messrs. Johnston with their "Bovril," and by the manufacturers of "Bouillon Fleet," all of which find patrons amongst the visitors to the Exhibition. But intermingled with all these there are Yorkshire

pies and turtle soups, sauces and various delicacies, which certainly suggest that it is worth while to live for the sake of eating. This is, indeed, the lesson of the whole section, and the only difficulty is to know how to select out of such an array of so many good things. Commendation is also called for by the displays made by Messrs. Macfarlane, Lang, and Co., of Glasgow, with their biscuits, fancy and otherwise, but notably a digestive biscuit called "Granola;" and by Messrs. Fry and Sons, with their chocolates and other sweets.

By the side of these food exhibits we have numerous stalls where British beverages tempt the thirsty foreigner. English beer enjoys, perhaps, an exaggerated reputation in France. Even in England we are seeking to imitate the German beers, which have the advantage of being much lighter. Thus, the Tottenham, export Pilsener beer has many admirers, whilst ordinary English ales, such as those exhibited by Messrs. J. Stocks and Co., of Halifax, Messrs. Shillingford and Co., and, again, Messrs. Mitchell and Co., of Smethwick, are in great demand. The large sale of English beer in France is undoubtedly a fact of growing importance. First, we are led to ask how far such beer can advantageously replace the wine usually drunk? Will the beer be purer, more free from adulteration than the wine? The increase of dipsomania has been very marked in France since wine has become difficult to procure in consequence of the phylloxera. Can beer, and especially English beer, advantageously take its place? By the immense preference given to German or Strasbourg beer, it would seem that this is not probable.

The increase of drunkenness, especially in the northern parts of France, is due, not only to the dearness of wine and the consequent sale of bad or semi-artificial wines, but also to the increased consumption of spirits naturally resulting from the difficulty of getting good wine. The question then arises whether English distillers could throw on to the French market more wholesome alcohols, and thus in a measure counteract the evil effects produced by the vile spirits drunk in France, especially by the poorer classes. One thing is certain: the Food Section contains some excellent English alcohols, amongst which may be specially mentioned the Irish whiskies of Bushmill's Old Distillery Co., county Antrim, and of Dunville and Co.; the Scotch whiskies of John Stewart, of Edinburgh, and Archibald Lander, of Glasgow; whilst English alcohols are well represented by Holland and Co., Deptford, whose gin seems of excellent and wholesome quality. The stall of the Salutaris Water Company also calls for praise. Important, as likely to promote the cause of temperance, if we admit that excess is largely due to the impurity of wines and spirits, is the very imposing show of the South Australian Wine Growers' Association. This is a collective exhibit, which has received a Government subsidy of £1000. No merchants or intermediaries are concerned in this exhibit; the wines come direct from the wine growers, and it is a Government agent who represents them. Of their purity there can be little doubt; the difficulty will be to get the wines into the hands of the public in a manner as direct as that by which they are exhibited in Paris. These wines reproduce, by imported vines planted and grown in South Australia, some of the most celebrated *crues* of Europe; some also that in Europe have ceased to exist. For instance, the Frontignan grape at Frontignan has been completely killed; but from Australia we now get a very good Frontignac wine. It is such wines—that is, sweet dessert wines—which have been most appreciated at the Exhibition. A wine named Sercial, grown in two or three of the largest vineyards of South Australia, seems to specially flatter the French palate. Then there is also the celebrated Tokay. The Australian Tokay is, however, somewhat lighter and sweeter than what I have tasted in Hungary. Some of these wines are very well suited for mixing with quinine and for other medical purposes. The clarets are about 20 per cent. stronger than French *vin ordinaire*, and, in proportion to strength, about the same price. Of course, they will stand travelling better, and also exposure. There is, or there should be, greater guarantee of their purity, and the supply is evidently destined to become unlimited. Thus, from Australia we may receive the answer to the vexed question how to give the masses a cheap, pure, and wholesome drink that, though stimulating, is not too strong.

An interesting International Congress has been held this week to promote the cause of free education; education free from dogma, from excessive official control, and absolutely *integral*. By this very useful French word the idea of completeness is conveyed; it means that everything is to be taught if the pupil is capable of learning. From the public health point of view the doctrines enunciated by this congress were important. M. Desmoulin, till quite recently Municipal Councillor of Paris, was in the chair at most of the sittings, but after the opening meeting held at the Hôtel de Ville the Congress, out of compliment to the foreign nationalities represented, elected Mr. Adolphe Smith (for England) as President, and Madame Polousky (for Russia) as Vice-President. There were a great many Russian and Polish teachers present, and delegates from Belgium, Italy, Mexico, the United States, and Switzerland. The greater number were teachers, but I noted also a few medical men, and the women delegates were nearly as numerous as the men. So far as the debates bore on questions connected with public health, the following were the principal points elucidated. Firstly, teaching was to be based exclusively on scientific principles, deductions from actual experiments. Instead of being told, the child was to be made to discover, if possible, that which it is desired to teach. Every natural proclivity was to be encouraged; a child should never be forced in any direction, and should never be overworked. The classes were to follow each other in such a manner as to provide the greatest possible change, and thus prevent weariness. But, above all, the children were to be fed, and well fed. The delegates were unanimous in denouncing the hardship endured by underfed children, and the impossibility of teaching under such conditions. The Swiss delegate declared that in primary schools of several cantons not only were free meals provided, but even articles of clothing were given away, so that the children of the poor should not suffer from cold while at their lessons.

For the preservation of the morality of children the congress was strongly in favour of mixed schools. Just as brothers and sisters were brought up together in the family, so ought boys and girls to work together at school, and they should have both masters and mistresses. Each sex had its special capacities, and the children should profit by both. There was far more decency when the sexes were together. Sometimes a master married one of the schoolmistresses; sometimes even among the children playmates later in life became husband and wife; but there was not that immorality which prevails to so large an extent in both boys' and girls' schools or convents where the sexes are separated. The experience of mixed schools in Switzerland and in Germany helped to confirm, the delegates maintained, these theories. Also there was far more emulation when the sexes were mixed.

Mr. Adolphe Smith introduced a resolution demanding that, "In view of preserving public health, it should be obligatory to teach in all schools and to both sexes the elementary laws of hygiene, including the principles of drainage, ventilation, and disinfection." He explained how the mortality in different centres of population in England had been reduced by one-third in consequence of the application of sanitary laws. But it was necessary that each person should be sufficiently acquainted with these laws to apply them in his own home and to vote for the election of such municipal councilmen, vestrymen, and members of Parliament as would promote wise legislation on the subject. For all these reasons it was necessary to teach the good doctrine early; and no better lesson could be given than the object lesson of a school properly built and free from all sanitary defect. In this respect it was fortunate that the Congress was international, for the Congress would have a great deal to learn from English schools so far as the drainage was concerned; but the English had much to learn from France with respect to the unilateral light and to the ventilation and warming of school-rooms which was more scientifically arranged in France. The Swiss delegate, in supporting the resolution, insisted forcibly on the necessity of building schools in accordance with sanitary laws; as the masters would be placed in an absurd position if they taught pupils principles of hygiene which were not applied in the *locale* where the lessons are given. A Polish delegate protested that, while most persons talked of hygiene, very few persons knew anything at all about the question. It was time that the science was properly and systematically taught. The Congress then unanimously voted in favour of the resolution.

A considerable sensation was produced by Madame Chéliga-Loévy's report on the condition of education in

Poland. Everything was done to prevent the free development of thought. The Government wanted doctors and engineers; but, on the other hand, looked on education as a danger, as a power that menaced social order. Hence the universities and the upper schools were checked in their development by all manner of prohibitory decrees. In one province, possessing 7,000,000 inhabitants, there were only twenty schools for secondary education. The children of poor parents were by law excluded from the universities, and only those who were very rich and considered favourable to the Government were admitted. The want of doctors, engineers, and educated men in Russia would soon assume the proportions of a national calamity. Madame Corradi, a Russian delegate, described the torture of children set to uninteresting tasks of Latin and Greek, taught like parrots, not allowed to think, and so uselessly and stupidly overworked that suicide among school children had become quite epidemic in Russia.

The Congress, at its last sitting, decided to constitute itself into an International Association of Educators, and M. Francolin, 174, Faubourg St. Denis, was elected international secretary. The Association will seek to promote in every country the cause of free and scientific education.

SANITATION IN BENGAL.[1]

THE Report of the Sanitary Commissioner for Bengal just issued comprises four subjects: (1) The vital statistics of the general population; (2) general history of the chief diseases; (3) sanitary work (civil); and (4) personal proceedings. As regards the first of these—the vital statistics of the general population,—the system of registration in Bengal is still so very imperfect that no reliance can be placed upon the returns either of births or deaths. Dr. Gregg gives several instances of the results of the imperfect registration of births, and remarks, "it is needless to observe that these figures are ridiculously inaccurate." As regards the deaths, the Lieutenant-Governor, in calling attention to fourteen municipalities in which the reported death-rate ranged between 6·67 and 12·79 per 1000, "is constrained to remark that these results are very discreditable to the municipal committees, especially in the case of those municipalities in which the Act has been in force for many years. It is obvious, as remarked by the Sanitary Commissioner, that the registration both of births and deaths is still so extremely defective that no trustworthy conclusions can be drawn from it, either with regard to the general health of the province, or the healthiness of the year under report, as compared with that of previous years." We hope, though we are by no means sanguine, that the steps recommended to be adopted to improve the registration may result in obtaining more reliable data on these important points.

The history of the chief diseases, though wanting in numerical accuracy as a measure of the death-rate of the people, may be usefully studied as indicating the chief causes of mortality and leading to a study of those measures by which they may be ameliorated or removed. The death-rate in the Province as shown by the returns amounted to 22·94 per 1000 of population, and of this 16·53, or upwards of two-thirds, appear under the head of fever. The months in which the mortality from this cause is highest are October to January inclusive, and those in which it is lowest are June and July. "The high mortality during the last three months of the year is undoubtedly due to malarial fever caused by the marshy and water-logged condition of the country after the rains." The cause of fever was pointed out many years ago by Dr. D. B. Smith, the late lamented Professor of Hygiene at Netley, to be chiefly want of drainage, partial or complete stagnation of watercourses, and saturation of the soil with moisture. The adoption of a well-devised and efficient system of drainage, therefore, would appear to be the most likely means of combating this source of disease and death, and with it provision should also be made for the supply of wholesome water, as there can be no doubt that a considerable amount of fever is due to the impure and filthy quality of that which is too often the only available. The disease next in importance as a cause of death is cholera, by which in 1888 there were 11,391 deaths registered, being 1·68 per 1000 of the population at the last census. It was most fatal in May and July. "The departmental reports do not cast any new light upon the etiology of cholera. ..... The civil surgeon's reports, however, contain evidence which is in the main confirmatory of the view that outbreaks of cholera are traceable to pollution of drinking water, and that dissemination of the disease is largely dependent on water fouling." This affords an additional reason for improving the water-supply and protecting it from contamination. Of the other diseases none gave rise to a high death-rate; that from bowel complaints was 0·79 per 1000, and from injuries 0·40. Of the latter, wounds and accidents caused one-half, snake-bites and wild beasts one-fourth, and suicide one-tenth. It is worthy of remark that the number of suicides recorded was greater among women than men, in about the proportion of 3 to 2, but it is possible this may be a result of the defective registration. Under the head of "Sanitary Works (Civil)," Dr. Gregg calls attention to the very insignificant amount expended on sanitary works and improvements, such as drainage, water-supply, and public latrines, which are among the most urgent requirements of the province; and he also strongly advocates the disposal of the dead by cremation, which, he states, when completely and properly carried out, is free from anything offensive either to sight or smell. The abstracts of the inspection reports afford melancholy evidence of how little has been done to improve the towns since the last inspection, and of how much remains to be done before they can be deemed in a fairly good sanitary condition.

[1] Twenty-first Annual Report of the Sanitary Commissioner for Bengal for the year 1888, by Surgeon-Major W. H. Gregg, M.B.

HOSPITAL REUNIONS.

St. Bartholomew's.—The annual dinner of the old students of St. Bartholomew's Hospital was held on Tuesday evening in the great hall of the hospital, Mr. John Langton in the chair. About 120 sat down to dinner, and grace was said by the Vicar of the parish, which is completely covered by the hospital. The usual loyal toasts, as well as those of the school, the hospital, the visitors, the chairman, and the secretary of the dinner were drunk with enthusiasm. Dr. Hill, Master of Downing College, Cambridge, a former scholar of the school, was one of the guests of the evening, as also were Professors Humphry and MacAlister, the Registrar of the Royal College of Physicians, and Sir Frederick Abel. After dinner coffee was served in the library.

St. Thomas's.—On Tuesday afternoon the Medical Session at the School attached to this hospital was inaugurated by the usual delivery of an introductory lecture. Mr. W. Anderson gave the address in the afternoon at three o'clock in the large female operating theatre. Mr. Anderson had selected for his subject, the "History of Surgery," and throughout there was the greatest attention paid by the large audience present to a most interesting and learned address. At 6.30 P.M. the annual dinner was held in the Governor's Hall of the hospital, and there was a large meeting of members of the staff, and old and present students of the hospital. The chair was taken by Dr. John Harley, who, after the usual loyal toasts, proposed the "Army, Navy, and Reserve Forces," to which Surgeon Harris, A.M.D., Mr. Mackellar, and Sir W. MacCormac responded. To the toast of "St. Thomas's Hospital," proposed by the Chairman, Mr. J. G. Wainwright, one of the governors, and an almoner of the hospital for sixteen years, responded, in the absence of Mr. Alderman Stone, the treasurer. Mr. Wainwright referred to the financial condition of the hospital and to the good understanding which exists between the medical staff and the hospital authorities. Mr. John Croft proposed the "Health of the Chairman," who briefly replied. Mr. Nettleship, the Dean, responded to the toast of the "Medical School," proposed by Professor Charles Stewart. Dr. Ord proposed the "Old Students," and Mr. H. Lavers of Colchester and Mr. W. F. Haslam of Birmingham replied. The "Health of the Secretaries" (Dr. H. P. Hawkins and Mr. H. B. Robinson) was proposed by Mr. Sidney Plowman, and they each briefly replied. At the termination of the official toast list Mr. W. F. Haslam proposed the "Health of Mr. Plowman," the sentiments to which he gave utter-

ance being enthusiastically received, and Mr. Plowman briefly replied.

Middlesex.—The annual dinner of the past and present students of this hospital was held on Tuesday evening in the Venetian Salon of the Holborn Restaurant. There was an unusually large number present, and the festival was most successful. Dr. Douglas Powell was in the chair, and was supported by nearly all his colleagues, by several members of the Weekly Board of the hospital, and by a large number of old Middlesex men. After dinner the usual toasts were duly honoured. In a very happy speech Dr. Powell proposed the toast of the evening, the "Middlesex Hospital and Medical School," which was responded to by Mr. Bell-Sedgwick, the vice-chairman of the Weekly Board, who has been a member of the board for over thirty-five years, and by the dean, Mr. Pearce Gould. The toast of the "Past and Present Students," proposed by Mr. Hulke, was responded to by Mr. Freeman, who is now mayor of Bath, and by Mr. Daniel, the senior Broderip Scholar. During the evening Mr. Wilhelm Ganz played a pianoforte solo, and Mr. Hulbert Fullerson and Mr. Charles Ganz sang various songs. The dinner, the speeches, and the music were all declared to be excellent.

St. George's.—At the conclusion of the introductory address by Dr. Clifford Allbutt on Oct. 1st, the usual ceremony of the distribution of the prizes was presided over by Sir Henry Pitman, and, after a few forcible and encouraging words to the students, the following honours and certificates were awarded:—Entrance Scholarships of £125 and £50, to Mr. A. R. Rendle and Mr. E. G. Little; £65 Scholarship for Oxford and Cambridge men, to Mr. G. E. Hale, of Cambridge; the Johnson Prize in Anatomy, to Mr. H. A. Hinge; the Pollock Prize in Physiology, to Mr. N. Elrington; the Acland Prize in Clinical Medicine, to Mr. W. K. Fyffe; Sir Charles Clarke's Prize, to Mr. F. Jaffrey. Mr. H. S. Barkworth obtained the Brackenbury Prize in Surgery, the Thompson Medal, and the Treasurer's Prize. The General Proficiency Prizes were obtained by Messrs. R. M. Walford and R. G. Turner. In the evening the annual dinner of the Medical School was held at the Métrôpole, under the presidency of Dr. A. T. H. Waters of Liverpool. In proposing the toast of the Medical School, the Chairman laid great stress on the want of additional space both for the school and the hospital, a suggestion which apparently met with the unanimous approval of the company present.

Guy's.—The winter session at Guy's Hospital opened with the first meeting of the Physical Society on Tuesday, Oct. 1st, at 8 P.M. Dr. Samuel Wilks occupied the chair and inaugurated the meeting with a kindly welcome to the new students of the hospital and a short address to the past and present Guy's men who formed a large portion of the audience. Dr. Barrs of Leeds then read a paper on "Some Recent Changes in Medical Education," which was well received; and the proceedings terminated with a vote of thanks to the chairman. Tea and coffee were provided, and there was a fine exhibition of photographs, pathological drawings, microscopic sections, and surgical instruments in the large rooms of the student's club.

King's College.—About seventy past students of King's College dined together on Tuesday, Oct. 1st, at Limmer's Hotel, Conduit-street, under the presidency of Dr. John Walters of Reigate. A very pleasant *réunion* took place, and the speeches of the chairman, Mr. T. H. Cheatle of Burford, Oxon., Mr. John Teale of Scarborough, and Dr. Gage Brown, C.M.G., were full of reminiscences of old King's College teachers and students. The Principal, Dr. Wace, replied to the toast of the King's College Medical School and Hospital, and the Dean, Dr. Curnow, proposed the health of Sir A. Rollit, LL.D., M.P., as the lecturer of the day.

The London.—On Tuesday, Oct. 1st, at 7 P.M., close upon two hundred old London Hospital men sat down to a substantial and well-served repast in the new library of the Medical College. Dr. Langdon Down, the senior physician to the hospital, presided, and was supported by Jonathan Hutchinson, Esq., F.R.S., President of the Royal College of Surgeons; F. C. Carr-Gomm, Esq., chairman of the Hospital Committee; Professor George Buchanan, Glasgow; and many other colleagues and friends. After the usual loyal toasts, "Prosperity to the College" was proposed by the chairman, and responded to in a humorous speech by Mr. Rivington, who compared the present state of the College with that of thirty years ago. Mr. Hutchinson proposed the health of his friend and fellow-student, the chairman. During the dinner a telegram was received from Sir Andrew Clark, conveying his sorrow at being unable to be present owing to indisposition, and great regret was expressed by all at his unavoidable absence. The "Health of the Visitors" was proposed by Mr. Frederick Treves, and replied to by Professor Buchanan and Mr. Carr-Gomm. During and after the dinner, which was provided and served by Mr. Holland, the manager of the Students' Club, instrumental and vocal music was provided by Mr. T. Lawler. Dr. Stephen Mackenzie, Mr. Rivington, and Mr. Openshaw acted as secretaries on the occasion. Shortly after 11 o'clock the company separated, after an extremely enjoyable evening.

Westminster.—The session was opened on Wednesday, in the presence of a majority of the staff and of a large number of students and friends, Professor Alexander MacAlister, F.R.S., of Cambridge, occupying the chair. After the dean of the school (Dr. Donkin) had presented his report, which gave a satisfactory account of the general condition of the school, and especially of the successes of the Westminster men at the various examinations, Dr. P. S. Abraham (Lecturer in Physiology) was called upon to deliver the inaugural address. The school prizes were then awarded by the chairman. The prizemen included Mr. A. S. G. Bell (Treasurer's Prize), Mr. W. H. Tebbs (President's Prize), Mr. Yearsley (Bird Prize), Mr. Llewelyn Lewis (Clinical Medicine Prize), and Messrs. Stonham, Byles, G. A. S. Bell, Garrard, Tebbs, Harrison, Brice, A. S. G. Bell, Yearsley, and others (various class prizes and certificates). Professor MacAlister then made some appropriate remarks, and congratulated the school upon its excellent results. In the evening, the staff, several of the governors of the hospital, and many of the past and present students of the hospital, dined together at the Holborn Restaurant, Dr. Dupré, F.R.S., being in the chair. The toast of the evening, the "Westminster Hospital Medical School," was proposed by Professor MacAlister, and other toasts were spoken to by the chairman, Dr. Allchin, Mr. Cowell, Dr. Sturges, Dr. Donkin, Mr. Macnamara, the Rev. Mr. Jones, the Rev. Mr. Echalaz, Dr. Pearse, Mr. Hunt, Mr. Sharman, and others. The proceedings were enlivened by a programme of music rendered by some of the students.

THE SANITARY CONGRESS.

THIS institute resumed its deliberations in congress at Worcester on Thursday, Sept. 26th, at the Guildhall, the president, Mr. G. W. Hastings, M.P., in the chair.

The prophylaxis of diseases.—Sir Douglas Galton, K.C.B., D.C.L., LL.D., F.R.S., in presence of a large audience, delivered an address on the subject of certain groups of diseases which were amenable to the control of preventive measures. These diseases were small-pox, typhus, enteric fever, scarlatina, measles, whooping-cough, diphtheria, cholera, and phthisis. They were now able to point with unerring certainty to the fact that, given certain conditions of impure air, impure water, and a soil saturated with filth, sickness and death from one or other of these preventable diseases would ensue. Commencing with small-pox, the lecturer said that, through vaccination and revaccination, that disease had been almost entirely obliterated in the German army, and largely in German cities. But in England we have not been so careful in enforcing either vaccination or revaccination, and we have suffered, even in recent years, from severe small-pox epidemics. Typhus fever, which was a common and very fatal disease at the beginning of the century, was essentially associated with overcrowding and destitution. It used to be the inhabitant of our gaols, under the name of "gaol fever," which was of so infectious a character that on more than one occasion the judge, the jury, and the bar caught the fever from the prisoners in the court. Typhus was essentially the disease of the pauper and badly housed elements of the community, but wherever it prevailed it might be caught by those around who were within the sphere of its influence. Scarlatina had no such relation to water-supply and drainage as had those other preventable diseases of which enteric fever is a type. Recent investigations appeared to make it certain that the cow suffered from a disease of the nature of scarlatina,

which was in some way communicable to man through the milk. Hence the necessity of enforcing in our houses and farmyards sanitary conditions of cleanliness and pure air. The laws governing the spread of cholera were well understood by sanitarians. Figures showed that these zymotic diseases, which Dr. Farr has aptly called "filth diseases," had of late years been largely reduced by sanitary means. Sanitation necessarily meant the increased well-being of the people, and especially of the lower class. Epidemics could only be prevented by making the whole population sanitary, and the speaker proceeded to give some valuable advice on the subject of the conservation of the general health, concluding by producing a number of statistics showing the meaning of the preventable cause of death.

Chemistry, meteorology, and geology.—On the following day (Friday, Sept. 27th) Dr. J. W. Tripe opened this section with an address, taking for his special subject winds, with remarks on their sanitary effects. He commenced by minutely describing the constituents of the atmosphere, and considered the direction of the wind in relation to its effect on the general health. Easterly winds in this country were very trying, even to healthy persons, and often fatal to the young and old, causing more deaths in London when combined with fog in one week than the most violent blizzard. He accounted for certain outbreaks of infectious diseases by winds blowing in the direction affected. Some physicians, he said, doubted the possibility of small-pox infection being carried more than a few feet; but he could not understand how, if a disease be set up by a living organism, falling on a soil which it would develop, it should be able to infect a person at 20 ft. distance, and not at 100 ft., or even at half a mile. Surely a living organism could not be destroyed (oxidised) in its passage through the air for half a mile when the wind was travelling at the rate of only four miles an hour; and yet articles of infected clothing and scabs of small-pox they knew would retain infective power for months.

The proceedings of the Congress came to a close on Saturday, Sept. 28th, when Professor W. H. Corfield, M.A., M.D. Oxon., F.R.C.P., addressed a working men's meeting at the Worcester Public Hall on "the Mistakes made in Life and the Remedies for those Mistakes." In infancy parents should, above all, not make the mistake of letting their children be too thinly clad, nor commit the common mistake of supplying infants with improper food. The only proper food for children was that which nature provided—the mother's milk. Boiled bread, tea and starchy foods, should be especially avoided in the case of infants until their salivary powers had developed. The diarrhœa of infancy generally arose from improper feeding and rickets, called by foreigners the "English disease." One of the greatest mistakes, again, in the treatment of children was not to have them vaccinated before they were three years old. As to their exposure to cold, it was a monstrous mistake for parents to send out their children with bare necks, heads, and legs. Children ought to be clothed from head to foot winter and summer. Children required plenty of sleep, plenty of food, together with variety either in work or play. It was, however, necessary that children should go to bed early. The worst of all habits to acquire in youth was that of drinking alcoholic spirits at any time except at meals, and of drinking "nips." On the subject of teetotalism he would not trench. Under no circumstances should tobacco smoking be encouraged in youth. At manhood, the time of marrying and giving in marriage, he cautioned his hearers against intermarrying with members of families in which nervous or consumptive diseases were hereditary, as those diseases would be certain to recur in the offspring. At middle age the most common mistake was overfeeding, and in old age the wearing of scanty clothing leading to bronchitis.

HONG-KONG.

THE annual report of the Colonial Surgeon of Hong-Kong for 1888 shows the health of the Colony, as measured by the death-rate and mean sick of the troops and police, to have been unsatisfactory. Among the European troops the admissions into hospital were 1045, the deaths 12·46, and the mean sick 53·94 per 1000 of strength; among the Asiatic troops they were 803, 28·09, and 28·09 respectively. Although the admissions were lower than in 1887, the deaths in both classes and the mean sick of the Europeans were considerably higher. The deaths among the European and American residents were also much higher than in any of the preceding nine years; but as the numbers living are manifestly incorrectly stated, it is impossible to make an accurate comparison. The increase in the death-rate of the Europeans and Americans appears to have been due to an outbreak of small-pox, which caused 29 of a total of 122 deaths. The death-rate in the police force was 21·90 per 1000; among the Europeans 8·7, the Indians 18·0, and the Chinese 28·6 per 1000 of each class respectively. From an average daily number of 531 prisoners in Victoria Goal the cases of sickness amounted to 808 and the deaths to 28·25 per 1000, both much higher than in the preceding year. The high death-rate was due to choleraic diarrhœa, which was the cause of 7 in a total of 15 deaths. Two of the other deaths were those of prisoners killed in an attempt to escape from the chain gang, and one was by suicide in the cells. As in previous years, the mortality in the Tung Wa Hospital was very high, 1428 deaths having occurred among 2456 patients; 276 of the deaths were from small-pox, and 379 cases were moribund on admission.

In the appendix to the report is a paper on the prevalence of beri-beri among the water police of Hong-Kong by Mr. Atkinson, the Superintendent of the Government Civil Hospital. It appears that of 121 men of this force whom he examined, 17 have had the disease, and during the year 1888 it had been the cause of death of 5 men in a strength of 130. It is stated to be very common in Hong-Kong, and the treatment adopted would seem to bear out the opinion of the Director-General of the medical department of the navy of Japan that this disease depends, in a great measure at least, on the quality of the food of the men (*vide* THE LANCET, July 9th, 1887). In the water police the men provide themselves with food.

In the report of the Government analyst three investigations in connexion with cases in which symptoms of poisoning occurred are noted. The first was a case in which datura alba was supposed to have been mixed with a fish stew; the second was one of alleged tea drugging; and the third one in which twenty-two men of the band of the Northamptonshire Regiment were affected with "burning pain in the stomach and violent vomiting, causing partial collapse," supposed to have been caused by cheese, of which they had partaken for supper. In none of the cases could satisfactory evidence be obtained in confirmation of the charge of poisoning. In connexion with the hospital considerable improvements appear to be in progress, but are not yet completed. Mr. Ayres, moreover, points out the need for the construction of a suitable laundry with a small hospital disinfecting apparatus, and also a building for the reception of all cases of infectious diseases.

SOCIETY FOR THE STUDY OF INEBRIETY.

AT a meeting held on the 1st inst. (the President, Dr. Norman Kerr, in the chair), a paper was read by Mr. H. C. Trestrail, on Inebriety and some of the Circumstances leading thereto. The circumstances of birth, as exemplified in heredity, the use of alcohol during lactation, and defective education were dwelt on, the necessity for self-control being enforced. There should be education as to the action of narcotics. Inebriety was a disease demanding sound scientific and judicious medical treatment. The President, in replying to the question, Is there an arsenic inebriety, responded in the negative, though he had known iodine, arsenic, and other similar substances taken to excess. Only narcotics and anæsthetics, such as opium, alcohol, and ether, gave rise to a true narcomania, though a permanent impress might be made on the nerve-centres by any substances. It was resolved to memorialise the Home Secretary and Government to use their influence to promote the appointment of a Parliamentary Committee to inquire into the results of the working of the Inebriates Acts. Another resolution was passed approving of the leading principles of Mr. Charles Morton's Restorative Homes (Scotland) Bill—viz.: (1) voluntary reception and detention without appearance before a justice; (2) compulsory admission and detention of inebriates unable or unwilling to apply of their own accord; (3) provision at the public charge for the detention and treatment of impecunious

inebriates. Among those who took part in the discussion were Messrs. Jabez Hogg, H. W. Williams, G. K. Poole, Hazell, Paramore, and Parsons (West Worthing).

EXTENSION OF MARISCHAL COLLEGE.

WITH a view to extending the University Buildings in New Aberdeen, the university authorities some time ago acquired several of the old houses adjoining the College, and, to make way for the present extensions, seven houses are to be cleared away. The new buildings are to be erected parallel to, and between, the south wing of Marischal College and Longacre, and will measure 168 ft. in length, 27 ft. in width, and 57 ft. in height, and will consist of four storeys. Amongst other conveniences, there will be two large animal observation rooms, a hygienic museum, a bacteriological laboratory, a materia medica practical class-room, a physiological practical class-room, a medical jurisprudence practical class-room, and numerous other departments connected with medical study, all designed on the most modern and approved principles. The new buildings, which have been designed by the Government architect for Scotland, Mr. W. W. Robertson, are to be ready for occupancy by March, 1891, and the total cost of the present extensions will be between £5000 and £6000.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Birmingham, City.—Last year, according to Dr. Alfred Hill, Birmingham attained the lowest death-rate it has ever been able to record—namely, one of 17·5 per 1000,—and considerable improvement existed as regards the more preventable diseases, such as fever and diphtheria. The authority are, however, very properly warned that some at least of this satisfactory state of affairs was due to exceptionally favourable climatic conditions; and we may now add that scarlet fever, which last year was just rising from its lowest ebb, has since then given evidence of how such diseases run in cycles; indeed, in 1888 that disease was still lying all but dormant. The infantile death-rate was also low in Birmingham last year in comparison with previous years. As usually, it was to an important extent made up of infantile diarrhœa, and to this disease Dr. Hill devotes some attention, quoting, among other things, the whole of Dr. Ballard's general report to the Local Government Board on the subject. The abolition of the filthy form of midden privy, heretofore almost general, is steadily proceeding; the need for a proper abattoir is becoming more and more pressing; the dairies, milkshops, and cowhouses are looked after, and are especially reported on; as are also the canal boats and the bakehouses. The infectious hospital received 528 cases of scarlet fever and 18 of small-pox, and resort to the hospital for the purposes of isolation is stated to be becoming more and more popular. An excellent disease chart, which, however, includes neither diarrhœa nor small-pox, appears in the report, in addition to other matter both tabulated and in the form of diagrams.

Bollington Urban District.—With a population estimated at 3900, Bollington had last year a death-rate of 18·2 per 1000. Mr. Allen's report is a brief one in so far as the sanitary circumstances of the district are concerned, but it is stated that back yards and streets are still in a very defective state as regards paving, that some improvement has taken place as to dwelling accommodation, that drainage and other nuisances have been attended to, and that the dairies, cow sheds, and milk shops have been inspected as heretofore.

Kingston-upon-Thames.—This district had in 1888 the lowest general and zymotic death-rates on record—namely, 14·2 and 0·68 per 1000 living, the population being 23,490. Diphtheria, formerly somewhat prevalent, almost disappeared last year, and Dr. Shirtliff desires to point out that this result has occurred concurrently with a system of disconnexion of house drains, although he declines to tie himself to the view that the two events are necessarily related to each other as cause and effect. A constant water-supply remains to be provided. The question of the disposal of the sewage is reported to have been most satisfactorily dealt with, and the dual system of notification is referred to as working in a harmonious way.

Ealing Urban District.—Assuming the population of this West-end suburb to be 22,800, Dr. Patten finds the death-rate to have been 10·9 per 1000 for last year. The zymotic mortality was also small; but Ealing is well prepared to meet any emergency by having an excellent isolation hospital, which continues to be resorted to by all classes, and especially by so-called private patients, who have a small isolation room to themselves. Private roads have been improved during the year, and there has been a continuation of good current sanitary work.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5501 births and 3285 deaths were registered during the week ending Sept. 28th. The annual rate of mortality in these towns, which had been 16·2, 16·9, and 17·0 per 1000 in the preceding three weeks, further rose last week to 17·9. During the thirteen weeks ending on Saturday last the death-rate in these towns averaged 18·6 per 1000, and was 1·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 7·9 in Huddersfield, 12·5 in Nottingham, 14·7 in Oldham, and 14·9 in Norwich. The rates in the other towns ranged upwards to 27·6 in Sunderland, 28·0 in Blackburn, 31·0 in Preston, and 32·7 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 529 and 537 in the preceding two weeks, declined again last week to 529; they included 258 from diarrhœa, 67 from scarlet fever, 60 from diphtheria, 60 from whooping-cough, 56 from "fever" (principally enteric), 28 from measles, and not one from small-pox. These zymotic diseases caused no death last week in Derby, and the highest death-rates in Blackburn, Preston, and Plymouth. The greatest mortality from diarrhœa occurred in Sunderland, Newcastle-upon-Tyne, Bolton, Wolverhampton, Blackburn, and Preston; from scarlet fever in Blackburn and Plymouth; from whooping-cough in Plymouth and Wolverhampton; from "fever" in Salford, Portsmouth, and Halifax; and from measles in Newcastle-upon-Tyne and Norwich. The deaths from diphtheria included 44 in London, 4 in Portsmouth, 3 in Manchester, 3 in Salford, and 2 in Plymouth. Small-pox caused no death in any of the tweny-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1247, against numbers increasing in the preceding thirteen weeks from 559 to 1171; 166 cases were admitted to these hospitals during the week, against 196 and 128 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 152 and 142 in the preceding two weeks, rose last week to 189, but were 34 below the corrected average. The causes of 69, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Salford, Oldham, Portsmouth, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Cardiff, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·1 and 16·4 per 1000 in the preceding two weeks, rose again to 18·8 in the week ending Sept. 28th; this rate exceeded by 0·9 the mean rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 9·5 in Perth, and 16·6 in Edinburgh and in Dundee, to 20·7 in Glasgow, and 25·2 in Leith. The 481 deaths in the eight towns showed an increase of 62 upon the number in the previous week, and included 30 which were referred to diarrhœa, 14 to

whooping-cough, 11 to "fever" (typhus, enteric, or ill-defined), 9 to diphtheria, 6 to measles, 4 to scarlet fever, and not one to small-pox; in all, 74 deaths resulted from these principal zymotic diseases, against 79 and 74 in the preceding two weeks. These 74 deaths were equal to an annual rate of 2·9 per 1000, which corresponded with the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 38 and 36 in the preceding two weeks, further declined last week to 30, of which 13 occurred in Glasgow, 7 in Dundee, and 5 in Edinburgh. The 14 deaths from whooping-cough were within one of the number in the preceding weeks, and included 9 in Glasgow and 2 in Edinburgh. The 9 fatal cases of diphtheria exceeded the numbers in recent weeks; 3 were returned in Leith and 2 in Dundee. The deaths referred to "fever," which had been 11 and 6 in the preceding two weeks, rose again last week to 11, and included 6 in Glasgow and 2 in Edinburgh. Five of the 6 fatal cases of measles were returned in Glasgow, and 2 of the 4 deaths from scarlet fever in Leith. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 61 and 66 in the preceding two weeks, further rose last week to 89, and exceeded by 10 the number returned in the corresponding week of last year. The causes of 58, or more than 12 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·6, 24·5, and 28·5 per 1000 in the preceding two weeks, further rose to 31·5 in the week ending Sept. 28th. During the thirteen weeks ending last Saturday the death-rate in the city averaged 24·0 per 1000, the mean rate during the same period being 16·5 in London and 15·9 in Edinburgh. The 213 deaths in Dublin last week showed a further increase of 10 upon the numbers returned in the previous three weeks; they included 23 which were referred to diarrhœa, 6 to "fever" (typhus, enteric, or ill defined), 1 to measles, and not one either to small-pox, scarlet fever, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 20 and 31 in the preceding two weeks, were last week 30; they were equal to an annual rate of 4·4 per 1000, the rate from the same diseases being 2·4 in London and 2·0 in Edinburgh. The deaths attributed to diarrhœa, which had been 11, 15, and 18 in the previous three weeks, further rose last week to 23; the 6 deaths from "fever" showed a decline of 2 from the number in the previous week. The deaths of infants showed a considerable increase, while those of elderly persons had declined. Five inquest cases and 7 deaths from violence were registered; and 55, or more than a quarter, of the deaths occurred in public institutions. The causes of 43, or more than 20 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF. — Surgeon David Middleton Greig, M.B., resigns his commission (dated Oct. 2nd, 1889).

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon Charles Arrol, M.D., 3rd Volunteer Kent Brigade, Cinque Ports Division, Royal Artillery, to be Surgeon-Major, ranking as Major (dated Oct. 2nd, 1889); Surgeon Richard Joseph Bryden, 3rd Volunteer Brigade, Cinque Ports Division, Royal Artillery, to be Surgeon, ranking as Captain (dated Oct. 2nd, 1889).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Surgeon John Cashin has been placed on the Retired List of his rank; Surgeon Matthew Digan has been allowed to withdraw from Her Majesty's Naval Service, with a gratuity.

The following appointments have been made:—Surgeon John J. A. Costello to be Surgeon and Agent at Carnsore and Rosslare (dated Sept. 26th, 1889); Staff Surgeon Thos. M. Sibbald to the *Canada* (undated); Staff Surgeon George D. Twigg to the *Royalist*, Staff Surgeon Archibald M'Kinlay to the *Egeria*, Staff Surgeon John B. B. Triggs, M.B., to the *Pylades*, Staff Surgeon George W. Bell to the *Tourmaline*, and Staff Surgeon Henry J. Madders, M.D., to the *Hecla* (all dated Oct. 6th, 1889); Surgeon Bowen S. Meuds to the *Canada* (dated Oct. 6th, 1889); Surgeons George Wilson, M.B., and Harold F. D. Stephens, M.B., to the *Pembroke* (both dated Sept. 27th, 1889); Staff Surgeon Michael J. M'Carthy, M.D., to the *Cruiser*, and Staff Surgeon James Porter, M.A., M.B., to the *Scout* (both dated Oct. 3rd, 1889); Surgeon Charles W. Sharples to the *Melita*, Surgeon Octavious W. Andrews, M.B., to the *Duke of Wellington*, and Surgeon Francis M. Puddicombe to the *Royal Adelaide* (all dated Oct. 3rd, 1889).

VOLUNTEER CORPS.—1st Volunteer Battalion, the King's (Shropshire Light Infantry): Acting Surgeon F. K. P. Pigott to be Surgeon (dated Sept. 28th, 1889).—*Memorandum:* Infantry Volunteer Brigade—Eastern Counties Brigade: Surgeon and Surgeon-Major S. M. Hopson, 3rd Volunteer Battalion, the Norfolk Regiment, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Sept. 28th, 1889).

PROFICIENCY EXAMINATION FOR VOLUNTEER MEDICAL OFFICERS.—An order has been recently issued from the Home District Office notifying, for the information of Officers commanding Volunteer Corps, that the examination of Volunteer Medical Officers for certificates of proficiency on Army Form E 564 will in future be held quarterly on the first Tuesday in each quarter, commencing October 1st, 1889. Names of medical officers desirous of attending these examinations should reach the Home District Office at least a week before the date of examination. In order to prepare medical officers for the examination to be held next January, a course of six lectures will be given by Surgeon Walter Pearce, M.D., B.Sc., 20th Middlesex (Artists) Rifle Volunteers, on Thursday, Nov. 7th, 1889, and following five Thursdays, at the Headquarters of the Queen's Westminster Rifle Volunteers, Buckingham-gate, St. James's-park, S.W. For further particulars application should be made to the Hon. Secretary, R. R. Sleman, 7, St. Benet-place, Gracechurch-street, E.C.

Correspondence.

"Audi alteram partem."

THE USE OF THE ELECTRO-MAGNET IN OPHTHALMIC SURGERY.

To the Editors of THE LANCET.

SIRS,—The efficacy of the electro-magnet in the removal of fragments of steel or iron from the interior of the eye has been attested by too many to permit of any question as to its value; moreover, it rightly finds a place in all the text-books on ophthalmic surgery. I confess, then, it is somewhat disappointing to find a clinical lecture by Dr. Jeaffreson advocating, without allusion to the magnet, methods for removal of splinters of steel or iron from the iris, which were all very well some years ago, but are, to say the least, crude with the knowledge we now possess as to the capabilities of magnets and electro-magnets. There can be no question that numbers of eyes have been saved by the timely use of the electro-magnet which would otherwise have been lost; and it is the sense of this fact, founded on large experience of the employment of the electro-magnet and of accidents previously to its introduction, that impels me to write these few lines. From different regions of the eye I have removed seventy-three fragments of steel or iron; many of these I have recorded from time to time, and the whole have been incidentally alluded to in my address[1] as President of the Yorkshire Branch of the British Medical Association. Of this number, eight have been from the iris and anterior chamber. In such a case of foreign body in the iris as Dr. Jeaffreson mentions, the electro-magnet would have been valuable in two ways: 1. On approaching the electro-magnet to the cornea the presence and nature of the foreign body would have been immediately evident by its springing forward to the back of the cornea, or, if entangled much in the iris, by its dragging that membrane towards the magnet. In some cases it is possible to guide the foreign body in the anterior chamber to a convenient locality for removal, and then to drop it on the iris at the selected point. 2. After making a small corneal incision and advancing the point of the electro-magnet to or inside the wound, the fragment would have been extracted adhering to it, and very probably, as generally happens, without any necessity for removing a segment of iris. Such cases have not only occurred in my own practice, but in that of others,

[1] Brit. Med. Jour., July 13th, 1889

and it was my good fortune to be present at Moorfields some years ago, when Mr. G. Lawson extracted with my electro-magnet a splinter of metal from the anterior chambers of two patients.

I will merely add that my observations on the use of the magnetic needle, with cases illustrating its value, were put on record some years since.—Yours truly,

Sheffield, Oct. 1889. SIMEON SNELL.

MEDICAL AID ASSOCIATIONS AND FRIENDLY SOCIETIES.

To the Editors of THE LANCET.

SIRS,—An attempt having been made here to start a branch of the National Medical Aid Company, and a Medical Aid Fund for the familes of a Lodge of Oddfellows, a meeting of the medical men of this district was called to discuss the question, and, as a result, the following pledge has been signed by twenty-one out of twenty-three of those either in or retired from practice; one of the exceptions is a retired surgeon, the other a practitioner who has promised to sign it as soon as he is free from his medical refereeship, of which he has sent in his resignation to the National Medical Aid Company. Such societies have been so disastrous elsewhere to our profession, that we feel it necessary to make a stand against their establishment here. I subjoin a copy of the pledge, in order that our profession in other places may be encouraged and strengthened against such combinations against its welfare:—

"We, the undersigned members of the medical profession of Malvern and its neighbourhood, taking into consideration the fact that there are well-established provident dispensaries in our midst, pledge ourselves not to undertake the care of families of members of friendly societies at a contract rate of payment."—I am, Sirs, yours faithfully,

Malvern, Sept. 30th, 1889. STANLEY HAYNES, M.D.

NAPHTHALIN.

To the Editors of THE LANCET.

SIRS,—Referring to the article on naphthalin in THE LANCET of last week, I should like briefly to draw attention to the great temporary value of this antiseptic in cases of infantile diarrhœa and fetid urine. Rickets—by far the greatest creator of infantile diseases, the neurosis maker, the slime producer on respiratory, colonic, and vesical mucous membrane, and the bone deformer—is the chief parent of stinking stools and foul urine. Naphthalin in cachets, containing two grains for each year of the age of the infant, and given twice or three times a day, will alleviate the path of recovery whilst the dietetic errors are being rectified. Naphthalin will not restore health to any mucous membrane flabby from rickets, but it will tend to do so, assisting in the process of recovery. A return from a rachitic constitution to a healthy one can never be brought about unless an attempt be made to increase vitality, whilst the metabolism is brought back to healthy modes of working by, in one word, a diabetic diet. The treatment of rickets, for one week at least, is the treatment of diabetes. A meat diet even without milk, persevered in for a few days, has caused slimy, worm-infested motions to disappear, bronchitis to subside, and nocturnal restlessness to be replaced by calm, refreshing sleep.

I am, Sirs, yours faithfully,

Oct. 1st, 1889. ANGEL MONEY.

INFECTIOUS DISEASE IN LONDON.

To the Editors of THE LANCET.

SIRS,—In view of the remarks made in the first paragraph of your leading article of last week, may I ask you to favour me by inserting in your next number a copy of a letter which I wrote to Mr. Ritchie when the Notification Bill was in Committee.

I have the honour to be your obedient servant,

EDWARD SEATON.

George-street, Hanover-square, Oct. 2nd, 1889.

"August 4th, 1889.

"*To the Right Hon. C. T. Ritchie, M.P., President of H.M. Local Government Board.*

"SIR,—Having been one of the earliest advocates of the notification of infectious diseases to sanitary authorities, and having taken an active part in securing its adoption and its subsequent practical working, I may address you on the Bill which is now in Committee, and which will soon become an Act of Parliament. I understand that the London County Council is promoting, or intending to promote, an amendment that notification should be made to them. If this proposal means that the County Council claims to be the first to be informed of the existence of infectious disease, I beg to remind you that, at present, that body has no executive duties with regard to those diseases; and that to make it in the first place the recipient of the information would be to the disadvantage of "the executive"—viz., the vestries and their medical officers of health, and consequently to the public. If the proposal means that the County Council desires to receive information periodically as well as the Metropolitan Asylums Board, then it would be easy for them to obtain that information from the Asylums Board, which, as the hospital providing authority for London, is part of "the executive" and has a well-recognised claim on medical officers of health. Information obtained from that Board or given by it once a week would be surely sufficient for any purposes the County Council may have in view. There is precedent for such a course in the case of your honourable Board's medical department, which receives information once a week from the medical officers of health in the notification towns. I cannot think of any valid reason why the County Council should have earlier or more frequent information than that which is supplied to the medical department of your Board.

"I beg respectfully to submit my representation and argument to your consideration, and have the honour to be

"Your obedient servant,

"EDWARD SEATON."

THE MAYBRICK CASE.

To the Editors of THE LANCET.

SIRS,—If judges and juries could see through Dr. Kerr's spectacles would-be poisoners would have a good time of it. When he says that the evidence on every point was very much stronger against Miss Smith than against Mrs. Maybrick, he surely forgets that on the first indictment against the former the verdict was "innocent." I have spoken to many here on the subject of the Maybrick trial, and I have only met with one who did not consider the case "proven" against the prisoner. I leave Dr. Kerr to his own opinions, but believe I am justified in saying that his suggestion that a Scotch jury would have brought in a verdict of "not proven" in the Maybrick case is an imputation on the national intelligence which must be repudiated.

I am, Sirs, yours truly,

Partick, Glasgow, Sept. 30th, 1889. R. KIRK, M.D.

*** The discussion of this subject must now cease.—ED. L.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Scarlet Fever in Birmingham.

AT present there seems to be no abatement in this epidemic. Seventeen new cases were reported on Monday last, as against eleven on the Monday preceding. Seven patients were discharged from the Borough Hospital and eight were admitted. The new wards have been rapidly built, and now afford increased accommodation for forty patients; the number in the hospital stands at 320, so that the additional space will enable the authorities to provide ample room for the purpose required. A letter has been addressed to the local press by the Chairman of the Health Committee, stating that the danger has been much exaggerated. He points out that the city at the present time is suffering from one of those recurring periods when scarlet fever reaches the height of its development, and that, owing to the improved sanitary condition of the town, and the steps taken for isolation and treatment of the patients; the visitations occur at much longer periods and made no appreciable addition to the death-rate. Thus, "during the decade 1870 to 1879 the number of deaths from scarlet fever in this city averaged 419·1 per annum, the numbers in the years 1874 and 1878, when the scarlet fever waves reached their highest points, being 737 and 995 respectively; while during the nine years 1880 to 1888 inclusive they only averaged 114·7 per annum, and up to Sept. 27th the number for this year has been but 87." These facts are conclusive in themselves, and when it is added that most of the cases are of a mild type, it will be recognised that the causes for alarm are not so great as many people are inclined to believe. Among the hospital nurses all the infection has been of a light kind, and, with the exception of two, they are all convalescent. Mr. Eustace Hill, whose condition was at one time reported as dangerous, I am glad to learn is in a fair way of recovery.

Queen's College.

The annual conversazione and distribution of prizes took place on the 1st inst., the Warden, the Rev. W. H. Poulton, presiding. It was stated that the total entry in the medical

department for full and partial curriculum had been 59, and the number of students on the books 224. This was the first year in which the number of the students had exceeded 200. The passes obtained by students during the year had numbered 178, and of these 3 were at intermediate and 6 at final university examinations, and 128 at intermediate, and 41 at final examinations of licensing corporations.

Mason College.

The opening of the tenth session, and distribution of prizes, took place on the 1st inst. An address was given by Professor R. S. Heath, Chairman of the Academic Board. It was pointed out that there were 704 students in attendance during the past session.

Birmingham, Oct. 1st.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Opening of the College of Medicine of the University of Durham at Newcastle.

THE handsome pile of buildings erected for the College of Medicine of the University of Durham, and of which the Duke of Northumberland laid the foundation-stone about two years ago, was formally opened by the Mayor of Newcastle to-day. There was a large attendance of the profession, students, and the general public, and the proceedings were lively and interesting, and passed off very successfully. The College, which provides for every requirement of students and professors, is designed in the Elizabethan style, stands in a convenient situation, and is built of red brick with terra-cotta dressings, except the mullioned windows and entrance archway, which are of stone. I described the interior arrangements in a previous letter. Dr. Heath, the President of the College, said that so far the building had cost £31,000, and there was still a debt of £10,000 upon it. He made a stirring appeal to the public spirit of the inhabitants of the district for their aid in the removal of this debt, the completion of the building, and the endowment of the chairs, which he said would cost £40,000 altogether. Dr. Heath then delivered an eloquent address on sanitary science, and finished by handing the treasurer the handsome gift of 1000 guineas. It may be remembered that Dr. Gibbs of this city at the commencement of the building also gave £1000 towards the fund. The veteran Dr. Embleton was present, and was congratulated on his good health and spirits. Dr. Embleton, it may be mentioned, was a student in the old and original school of medicine in Newcastle, which was then carried on near the town walls about fifty years ago. To-night a very large attendance is expected at the conversazione in the college.

Hartlepools.

The Marquis of Londonderry last week inaugurated the new Headland Promenade at Hartlepool. It is a sea wall and a massive work costing £25,000. It slopes in thickness from eleven feet at the bottom to eight feet at the top, and varies in height from twenty-one to twenty-seven feet. It stretches from the Corporation-road to the Lighthouse, and placing a broad-based wall in front of the crags that were irregularly worn, a promenade of magnificent proportions is provided for the inhabitants of this ancient borough, whose mayoral list reaches back to 1315. Another function was performed at the same time by Lord Londonderry—namely, the opening of the extension of the Hartlepools Hospital which owes its original erection largely to the munificence of the Burdon family, and which it has been found needful to enlarge to meet the growing needs of the Hartlepools and their increasing population. At all events this extension fully provides for the present wants of the two towns. Lord Londonderry's tasks on the opening day would see the happy completion on our coast of works of difficulty, and objects of usefulness costing together close upon £35,000.

Middlesbrough.

The Middlesbrough Trades Council held their annual Hospital Sunday demonstration on Sunday last under the most auspicious circumstances. They marched through the town in large numbers to the Theatre Royal, where the Mayor (Major Raylton Dixon) presided, whose name is well known in connexion with hospital and ambulance work. The collections which were taken *en route*, and would be devoted to the North Riding Infirmary and Cottage Hospital, considerably exceeded those of last year.

Newcastle-on-Tyne, Oct. 2nd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Edinburgh University Gathering.

THIS year the admirable example set by Oxford last year has been followed by Edinburgh, and, before the commencement of the regular session, there has been instituted a series of lectures to those interested in science, art, and literature, who have not the opportunity of attending more extensive courses. A most influential committee of ladies and gentlemen has taken the matter in hand, and so far as can be judged from the continued attendance at the lectures, the movement has been attended with most marked success. The objects of the gathering are stated to be—1. To draw public attention to the means provided in the university extension scheme for improving the knowledge and elevating the tastes of the people. 2. To give all who have not had the benefit of a university training an opportunity of getting a little experience of university life, and to awaken in some, if possible, an enthusiasm for some definite line of study. 3. To consider as to organising a reading circle for Scotland. The committee have certainly been most wise in the selection of their lecturers. Professors Tait, Masson, and Crum Brown could scarcely be equalled, and, certainly, not excelled, in any list that could be drawn up. In the section which is of most interest to medical men, that of biological science, Professor Crum Brown leads the way, and is followed by Professors Cossar, Ewart and P. Geddes, and Drs. Barry Haycraft, A. P. Aitken, G. Sims Woodhead, and J. Arthur Thomson. It is, perhaps, fortunate that this gathering takes place during the period that the post graduate classes are being carried on, so that those who wish may listen to some of each of the sets of lectures, and, if they feel so inclined, may attend the conversazione, the special service in St. Giles' Cathedral, or some of the numerous and interesting excursions that have been arranged in connection with the gathering. Edinburgh men might take a note of this, as a factor to be taken into consideration when next year's plans are being matured.

Legacies to Edinburgh Medical Charities.

During the year to 30th September, a sum of £30,444 14s. has been left to the Edinburgh Royal Infirmary in the form of legacies and donations of £100 and upwards, and the Convalescent Home has been the recipient of no less than £3237 19s. 8*d.*

Edinburgh Health Reports.

During the quarter ended September the death-rate was 14·49 per 1000 of the estimated population, as compared with an average of 15·64 for the last five years. Diseases of the chest accounted for 24·20 per cent., and zymotic diseases for 9·30 per cent. In the Fever Hospital the number of cases admitted during the quarter was 338, and 253 were discharged. The daily average number of patients in hospital has been comparatively high this year: 131, as against 78 in the corresponding quarter of last year. Thirty patients died. It is seen from the report that a step in the right direction has been taken in respect to compensation for confiscated meat. During last month 10,289lbs. of unsound meat were seized as unfit for human food. In the case of one animal suffering from tuberculosis £18 4*s.* 9d. was paid in compensation.

Chair of Physiology in Dundee.

The only Edinburgh name mentioned as yet in connection with the new Chair of Physiology in Dundee, is that of Dr. Noël Paton. Should Dr. Paton decide to compete there can be no doubt that his reputation as a scientific worker and a most successful teacher would gain for him much support in his candidature.

Edinburgh, Oct. 1st.

GLASGOW.

The City's Population in 1889.

Dr. Russell, having obtained the data on which he calculates the population of the city proper every year—namely,

the return of inhabited houses within the municipality as at June 1st—now sets the number down as 551,478 persons; adding to this 6126, the number of inmates in institutions, as ascertained by special census, the total population is found to be 557,604. This is arrived at by multiplying 116,223 (the number of occupied houses) by 4·745 (the average number of inhabitants per house in 1881). We have thus an increase of 1360 houses over last year, and of 6169 souls. The following is a table of the successive movements of the population since last census in 1881:—

1881 to 1882	increase	19,166 or 3·74	per cent.
1882 ,, 1883	,,	10,228 ,, 1·92	,,
1883 ,, 1884	,,	4,250 ,, 0·78	,,
1884 ,, 1885	decrease	2,383	
1885 ,, 1886	increase	2,025 ,, 0·37	,,
1886 ,, 1887	decrease	1,325	
1887 ,, 1888	increase	7,440 ,, 1·37	,,
1888 ,, 1889	,,	6,169 ,, 1·12	,,
At inter-census rate ..	,,	2,056 or 0·39	,,

Medical Education for Women in Glasgow.

There seems to be some prospect of this matter being taken up in Glasgow, even during the present winter. St. Margaret's College has it under consideration, but there are difficulties in the way, especially as regards provision for clinical instruction. The teachers in Anderson's College medical school are understood to be favourable to the admission of women to their classes, and to be ready to undertake the management of "mixed" classes of male and female students. The Victoria Infirmary, to be opened in January next, would provide an excellent field for the clinical training of ladies, and the governors of that Infirmary are now considering the advisability of throwing their wards open to female students. If this is done, and if the governors of Anderson's College see their way to the admission of ladies to their classes, the work of the medical education of women, which has so far been confined to Edinburgh (among Scottish schools) might be carried on most successfully in Glasgow.

Inspection of Dead Meat.

The Town Council have determined to ask Parliament for powers for compulsory inspection of all dead meat brought into the city for human food. This is intended to bring foreign and American dead meat under inspection as well as that slaughtered in this country. It is well known that enormous numbers of carcases of oxen and sheep are brought into this country from abroad, and that these escape the inspection to which home-fed carcases are subject.

Public Health.

DURING the fortnight ending Sept. 21st there were registered 375 deaths, as compared with 410 in the preceding fortnight. This represents a death-rate of 18·5 per 1000 living, in place of 20·2 (or 17·5 in place of 19·1, according to the new estimate of the population noted below).

Glasgow, Oct. 1st.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Health of Dublin during 1888.

THE report of Sir Charles Cameron, medical officer of health for Dublin, upon the state of public health in that city during last year has been issued, and is one of great interest and well worthy of perusal. In 1888 the births in the Dublin registration district numbered 9884, or 28 per 1000, the average rate for the preceding ten years being 29; while the deaths amounted to 8894. Omitting 233 deaths of persons admitted into public institutions from places outside the Dublin registration area, the death-rate was 24·5, which was 3·9 below the average. Deaths from the principal zymotic diseases amounted to 983, or 2·8 per 1000 persons living. When we examine the city proper, we find that the total deaths from all causes was 6714, as against 8373 in 1887. The death-rate was equal to 26·22, the rate in 1887 being as high as 33·2. Of zymotic diseases, small-pox caused 1 death, measles 70, as against 423, and typhus fever only 25 deaths. Typhus fever has for some time past seemed to be dying out; whilst, on the other hand, enteric fever was more prevalent than usual during the year, 124 deaths having taken place, or an increase of 29. The most fatal zymotic disease during 1888 was whooping-cough, no less than 221 deaths from it being registered, as contrasted with 143 in the previous year. The greatly lessened mortality of 1888 may be chiefly attributed to a falling off in the number of deaths from zymotic diseases and constitutional maladies. As regards infant mortality, it may be fairly alleged that the high death-rate of towns is chiefly due to an excessive mortality of the children of the poor. Measles and other diseases which are rarely fatal in well-to-do families are formidable diseases in the homes of the very poor. The number of deaths of children uncertified in Dublin is something incredible, and is almost as great as the number in London with its immense population. It is, however, satisfactory to learn that in 1888 there has been a considerable decline in the death-rate among children under five years of age. The infantile death-rate was much greater in Dublin last year, as contrasted with London, both as regards its relation to the number of children under one year of age and the number of births, the latter being the most reliable test of infant mortality in a community. As pointed out by Sir Charles Cameron, the really serious factor affecting the death-rates is age-distribution. If it is identical in two towns, then the death-rate in both should be equal, and, if not equal, then that in which it is higher is clearly the more unhealthy.

Meath Hospital and County Dublin Infirmary.

The winter session of 1889–90 will be inaugurated on Monday next, Oct. 7th, when an introductory address will be delivered in the institution at 10 A.M. by Sir George Porter, Bart., senior surgeon to the hospital. The same evening the annual dinner for the *réunion* of old students, annual and life governors of the hospital, will take place at 7 o'clock at the Shelbourne Hotel. Sir Howard Grubb, F.R.S., one of the governors, will preside. Application for dinner tickets must be made on or before Saturday, Oct. 4th, to the honorary treasurer, Dr. L. Hepenstal Ormsby, 92, Merrion-square West. One or two guests may be invited by each governor or old student. It is expected that this *réunion* will be largely attended, judging from the number of names sent in already to the hon. treasurer by gentlemen intimating their intention to be present.

County Wexford Infirmary.

In consequence of the decease of the late surgeon—Mr. Henry H. Boxwell—a vacancy arose, and the governors last Monday met at the infirmary to elect his successor. There were two candidates; Mr. David Hadden, F.R.C.S., being elected by a majority of votes. The emoluments of the post are £120 per annum and a house.

Dublin, Oct. 1st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Are Professional Services Obligatory?

IT is generally believed in the profession, at all events throughout England and France, that medical men not engaged in public practice or bound by any contract, are free agents, and at liberty to give, or to decline to give, as may to them seem fit, their professional services. It would be news to most of them to learn that in accepting their diplomas they *ipso facto* undertook to discount their liberty of professional action by engaging to be at the beck and call of public authorities or private individuals whenever these might deem it proper to requisition their skill or expert opinion. That, however, the point is a moot one, at least, so far as France is concerned, is evident from the facts which I am about to relate. The liberty of the subject is questioned, and would even appear to be considered restricted, when the subject happens to be a medical man. Curious as this may sound in the nineteenth century, it is nevertheless true. We all know, and often to our cost, that there are many things touching the affairs of members of our profession about which the law appears to be by no means settled; but not many will be prepared to hear that our freedom of action is one of them. The matter is now being brought to an issue in the town of Rodez, where the relations between the medical practitioners and the local authorities have for the past two years or more been somewhat strained. Many things, which it would be useless for my present purposes to recount, have as time went on tended to render these relations more and

more strained, until they finally culminated in the open rupture which has now taken place. On Aug. 25th last the daughter of a farmer of Solsac, in Aveyron, disappeared from her home. Three days afterwards her body was found, and the local authorities were of course immediately on the alert with a view to elucidate the cause of the girl's death. With this object they sought the assistance of the medical men, one after another, in the immediate neighbourhood and the surrounding district, every one of whom, for various reasons which he stated, declined giving his services. The Procureur-Général of Montpellier was then applied to for advice, and he responded by promptly summoning the medical men before the local police-court, founding his charge against them on, as he alleges, the contravention by the doctors of Article 475 of the Penal Code, which runs: "Those who, being able, refuse either to take the necessary precautions, to give the services, or to lend the assistance which may be required of them in times of accident, riot, shipwreck, flood, fire, or other calamity, as well as in cases of brigandage, pillage, *flagrant délit*, public disturbance, or judicial execution, will be liable to a fine of from 6 to 10 francs inclusive." The matter under this heading came before the local court on Sept. 20th, the doctors being represented by the legal adviser to the Medical Society of Aveyron, which took up the defence. This gentleman made an eloquent and learned defence, too long for detailed reproduction here, but the salient points of which may be summarised as follows. He submitted, in the first place, that there was no article in the Code by the terms of which medical men were obliged to respond to the requisitions of the authorities, and that it would be quite an arbitrary proceeding to include the refusal of private medical practitioners as such, to act within the limits of conduct against which by its terms Article 475 was intended to operate. Confining himself to the strict technicality that the doctors were summoned in their capacity as medical men and not as private citizens, he maintained that Article 475 did not apply; it was, he said, rather a question of the assistance which every citizen should lend whatever might be his social position. Moreover, he continued, there was a fundamental difference between the medical man called as a witness to a fact which passed under his eyes, and the medical expert from whom one expected an intellectual effort requiring a special training, experience and care, which effort he made under the solemnity of an oath for remuneration. Furthermore he urged that even in their capacity as citizens Article 475 could not be said to apply, for the article was framed strictly speaking with quite another object in view. In accidents, wrecks, fires, &c., the assistance of every citizen, whatever his position, might perhaps be legally solicited in the emergency, but the case in point was quite another matter which the article did not include. Finally, he submitted that the absence of any mention of medical men in the article showed that it was not intended to apply to them specially, and that it could take no cognisance of the refusal of the doctors to withhold their services if they thought proper. At the end of the legal arguments the court decided to postpone judgment until Oct. 4th. The decision on the question is awaited, as well it may be, with considerable interest in the profession. It is right to add that the medical men make out a strong case of arbitrary treatment and high-handed proceeding against the local authorities for some time past.

The Heating of Parisian Houses.

As the winter approaches the question of the best and most economical way of heating our dwelling-houses comes again to claim attention. In consequence of the dearness of coal in this city its use is debarred to very many people, especially amongst the poorer classes. Wood, which is the alternative in open fire-places, is on the other hand cheaper, but gives out so little heat that, not to speak of the constant attention which it needs, it has to be burned pretty liberally before it will give enough heat to warm sufficiently an ordinary-sized apartment, so that in the result it comes to be almost as dear as coal. People are thus driven to the expedient of adopting the movable stove for heating purposes, of which the number of patterns offered to the public at tempting prices, or on the hire system, is legend, each pattern being warranted to excel the other in perfection and economy of consumption. The use of these stoves is very general already, while it is still on the increase, and *pari passu* with this increase the number of cases of accidental poisoning by carbon monoxide is largely increased, and goes on augmenting. The carelessness and ignorance attending the use of these stoves are so universal and the fatal accidents to be attributed to them so numerous that public attention was drawn to the matter in an able paper read at the Academy of Medicine by Dr. Lancereaux, in which he condemned the use of the movable stove, pointing out the dangers following in its train, and recommending that the State should be asked to regulate and supervise its use. In this sweeping condemnation he was joined by Dr. Brouardel, the well-known medical jurist, and Professor Gautier, the professor of chemistry at the Paris Faculty. Notwithstanding this, the public seems quite as eager as before to secure stoves of this kind, judging by the number of "new and perfect" models which are being constantly puffed in the daily press under fantastic names. There is reason to believe, however, that the authorities, alive to the danger to the public, will soon place the use of these asphyxiators under official control.

The Continental Anglo-American Medical Society.

The first meeting of the Continental Anglo-American Society took place on Monday afternoon, at the Grand Hotel, Sir Spencer Wells, one of the honorary presidents, taking the chair. The business was limited to the election of the officers of the Society, and arranging for next year's meeting. The same evening most of the members dined together in one of the sumptuous banqueting rooms of the Great Caravanserai. To the trivial all things are trivial, but the medical thinker, especially the physician to the dyspeptic millionaire, knows that proper cookery is half the art of medicine. Parisian doctors have, moreover, the well-merited reputation of being accomplished *gourmets*, and it was therefore no small responsibility that the dinner committee assumed in drawing up the *menu* for so critical a body of diners. What arts and seductions were employed have not transpired; but the practical result was that both wines and dishes were unexceptionable—a thing hitherto unknown in the annals (at any rate, of this town) of public banqueting. The task of proposing the health of the Queen and the presidents of the American and French Republics fell to Sir Spencer Wells, who acquitted himself with his customary *finesse*. Dr. Alan Herbert proposed the prosperity of the new Society, and two gentlemen not on the list followed, congratulating everybody generally. Sir Spencer Wells was then toasted, and the honorary secretary, Dr. Linn, also came in for a very well-deserved share of the honours. The speech of the evening, however, was that of Dr. Worms, who spoke as follows:—"Gentlemen, the French physicians whom you have been kind enough to ask to your cordial meeting have entrusted me with the agreeable mission of thanking you for your kind hospitality and of drinking to the prosperity of your association and its members. There exists between English and American *confrères* a bond of blood and language, and it is in the nature of things that they should consider themselves as brothers, and walk hand in hand in the path of science and in medical practice. The future of your association finds already in these conditions a guarantee of success; but I think also, gentlemen, that in this great city of Paris our English and American *confrères* find the greatest liberty for the development of their professional activity, and that they will never meet with any impediment either from their own compatriots or from us. I believe that I am expressing exactly the thoughts of French physicians, the present as well as the absent, in offering you on their behalf a greeting of cordial confraternity, to which is added a feeling of sincere friendship. French medicine has manifested to several of your number, gentlemen, its affection and its gratitude. I could cite several names, but you must allow me only to mention our illustrious president, Sir Spencer Wells, with whom I have been united in friendship for more than thirty years, and to whom I owe the honour of being amongst you. The name of Sir Spencer Wells is most popular in France, and most respected, and his election to the Academy of Medicine was the proof of this unanimous feeling. This sentiment has its origin in the incomparable services he has rendered to French surgery. It is to his loyal practice, open to all, that Sir Spencer Wells owes the definite acceptation of the operation of ovariotomy in France. That is his title to fame here, and that is why he has merited the gratitude and admiration of my countrymen."

Paris, Oct. 1st.

Obituary.

COMMENDATORE PIETRO DURANTI.

ON the morning of the 27th ult. the Pisan School of Medicine lost one of its brightest ornaments by the death of Dr. Pietro Duranti, professor emeritus in the University. He formed one of its teaching staff in 1851. He was director of the anatomical theatre, dissecting-rooms, and laboratory, and subsequently dean of the medical faculty, in which he held for many years, with much acceptance, the post of professor of surgery, theoretical and clinical. He was also a prominent member of the Academic Council, and in his appointment as Rector of the University he enjoyed and did justice to the highest honour the school could confer. To quote a Tuscan correspondent, "he was respected and admired for his learning and teaching power, while he was beloved for his sterling virtues and his kindly manners by colleagues, students, and citizens alike. He held numerous honorary posts and distinctions, Italian and foreign, and at the time of his death he was the working president of the Royal Conservatory of Sant' Anna, which owed much to his energy, his intelligence, and his accomplishments." Years of still further usefulness seemed in store for him, when he was struck down very suddenly at the age of seventy-four.

Medical News.

THE ALLEGED LEAD-POISONING AT KEIGHLEY WORKHOUSE.—On Monday an inspector from the Local Government Board made a private inquiry at the workhouse, with regard to the large number of inmates who, it is stated, are suffering from lead-poisoning.

EPSOM COLLEGE: FEMALE ORPHANS.—The Council of the Royal Medical Benevolent College will shortly elect an orphan daughter of a medical man to a scholarship giving free education and maintenance at the school of St. Anne's Society. Particulars will be found in our advertising columns.

THE PASTEUR INSTITUTE.—On the 2nd inst. three more patients—a man and two boys—who had been bitten by a rabid dog at Rugby, were sent to Paris to be treated at the Institut Pasteur at the expense of the Lord Mayor's Fund. This makes a total of twenty-eight persons sent from that source during the last three months.

WEXFORD INFIRMARY.—By the will of Mr. D. Cullimore, late of Longford-terrace, Monkstown, county Dublin, and of Ballyanne Park, county Wexford, and uncle to Dr. Cullimore, of Welbeck-street, W., the Wexford Infirmary has been left over £1000, and the poor of the village of Taghmon, county Wexford, over £8000.

RABIES.—The number of dogs in England officially reported during the week ending Sept. 21st as afflicted with rabies was 6, against 8 in the previous week; of these, 5 were killed and one died. The distribution was as follows:—York (West Riding) 2, and Chester, Kent, Lancaster, and Sussex, 1 each. No cases were reported from London.

HARROGATE BATH HOSPITAL.—This institution is now open for the reception of patients. The committee of management have made energetic efforts to extend the usefulness of the charity, and are making a special appeal for funds to liquidate the debt remaining on the building, which amounts to £10,000. The charity is open to the indigent poor throughout the United Kingdom.

POLICE SURGEONS IN CASES OF MURDER AND MANSLAUGHTER.—A memorandum has been sent to the divisional surgeons of the Metropolitan police, by the direction of the Commissioner, requesting them in all cases of murder or manslaughter to send a report of their post-mortem examination and conclusions as to the cause of death to the Commissioner, "as experience has shown the necessity and great importance of the police having the earliest possible information as to the medical examinations in such cases."

THE DWELLINGS OF THE POOR.—A meeting of the Mansion House Council on the Dwellings of the Poor, of which the Lord Mayor is president, was held on the 2nd inst., in the Long Parlour. Mr. John Hamer (hon. secretary) stated that the Grand Prize had been awarded to the Council by the jurors of the Paris Exhibition. Action in regard to insanitary dwellings had been taken in Finsbury, Marylebone, Shoreditch, Mile-end, Plumstead, and St. Saviour. In Bermondsey and Greenwich revisits of insanitary conditions were reported as having been satisfactory, inasmuch as complete remedies had been applied to the nuisances.

THE LOWESTOFT HOSPITAL.—The annual meeting of the governors of this hospital was held last week. The report, which was adopted, stated that the financial position of the institution was unsatisfactory and demanded the consideration of all interested in the charity. There had been during the past year a considerable decrease in the annual subscriptions, donations, and the proceeds of the Hospital Saturday Fund. The balance sheet showed a deficit of £250 17*s*. The present income from funded capital and other reliable sources amounted to £1000 per annum, and the expenditure, controlled with economy, to £1250. The number of patients treated had exceeded that of any previous year, being, in-patients 235, and out-patients 1330.

FIFESHIRE MEDICAL ASSOCIATION.—Last week the annual meeting of this Association was held at Dunfermline. Mr. James Morris, F.F.P.S. Glas., of Dunfermline, the president, read a paper on "Chloroform and other aids in Midwifery Practice." He stated that during the past seven years he had attended 570 cases, and in the majority of these had used chloroform, the effect of which was that only one mother out of that number had died, and four of the children were stillborn. This result was highly satisfactory, inasmuch as the average death-rate was from 1 to 2 per cent., while with children the average was from 5 to 10 per cent. Similar experiences were given by other practitioners. The officer-bearers were elected for the ensuing year, and the meeting terminated.

FOOTBALL CASUALTIES.—William Mundin, on the 21st ult., whilst playing in a football match at the Central Park, Aberdeen, between the Orion and Black Diamonds Clubs, fell and broke his collar-bone. A few weeks since he, during a football match in the same place, had his right arm dislocated. At a return league football match, on the 30th ult., between Everton and the Wolverhampton Wanderers, a young man named Allen sustained a sprained ankle. On Saturday last, during a match played under the Association rules at Heywood, a young man named Ashworth fell violently to the ground, and was badly injured in his spine. A youth named Hopton, who was injured in a football match at Newport, Monmouth, on Saturday, died in the Infirmary on Monday morning. On Saturday, a boy named Murray, ten years of age, fell down dead whilst playing football with other boys at Preston. He had just scored a goal.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on October 1st, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	244	59	..	59	..	362	442
North-Western Hospital	237	34	..	5	..	276	435
Western ,,	165	16	..	9	..	190	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	271	16	1	19	3	310	462
Northern ,,	328	..	..	..	..	328	480
Totals	1245	125	1	92	3	1466	2483

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BAYLEY, R. L., L.R.C.P. Lond., M.R.C.S., L.S.A., has been reappointed Medical Officer, Oldswinford Second District, Stourbridge Union.

CAMERON, J. S., M.D. Edin., M.R.C.S., has been appointed Medical Officer of Health for the Borough of Leeds.

CAMPBELL, ALFRED W., M.B., C.M. Edin., late Temporary Assistant Medical Officer, Norfolk County Asylum, Thorpe, near Norwich, has been appointed Junior Assistant Medical Officer to the County Asylum, Bicton Heath, Shrewsbury.

D'ARCY, SAMUEL ALGERNON, L.K.Q.C.P. Irel., L.R.C.S. Irel., L.M.R., &c., has been appointed Assistant Master of the National Lying-in Hospital, Dublin.

FARRINGTON, JOHN, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Pendleton Branch Dispensary of the Salford Hospital.

FRASER, D. A., M.D. Brussels, M.R.C.S., L.S.A., has been appointed Medical Officer and Public Vaccinator of Berry Pomeroy, Littlehempston and Stoke Gabriel, Totnes Union.

GARDNER, ERNEST FREDK., L.R.C.P., M.R.C.S., has been appointed House Surgeon to the Evelina Hospital for Sick Children, vice G. H. Pennell, resigned.

HAINS, L. I. C., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer and Public Vaccinator of Totnes and Darlington, Totnes Union, vice Raby, resigned.

HOFFMEISTER, WILLIAM, M.D. Heidelb., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Cowes Port Sanitary Authority, Isle of Wight.

HOLDEN, G. H. R., M.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to St. Bartholomew's Hospital.

LOMAS, ERNEST C., M.B., Ch.B. Vict., M.R.C.S., has been appointed Senior House Surgeon to the Royal Albert Edward Infirmary, Wigan, vice A. J. Barnard, M.R.C.S., L.R.C.P. Edin., resigned.

MACKINTOSH, DONALD J., M.B., C.M., has been appointed Superintendent and Resident Medical Officer of the Victoria Infirmary, Glasgow.

MCDOUGALL, W. STEWART, M.B., C.M. Edin., has been appointed Assistant House Surgeon to the Cumberland Infirmary, Carlisle, vice T. C. Meikle, M.B., C.M. Edin., resigned.

OGLESBY, H. A., L.R.C.P. Edin., L.M., M.R.C.S., has been appointed Medical Officer, York Union District.

RUTHERFORD, W. G., L.R.C.S., L.M., L.K.Q.C.P. Irel., has been appointed Medical Officer of the Seventh District, Newport Pagnell Union.

SHAW, CECIL E., M.A., M.D., M.Ch., of Belfast, has been appointed Honorary Consulting Ophthalmic Surgeon to the Alexandra Hospital, Ballymena.

STAMFORD, W. A., M.R.C.S., has been reappointed Medical Officer of the Sixth District, Mansfield Union.

STEVENSON, LOUIS E., B.A., M.B., B.C. Cantab., has been appointed House Surgeon to the Cumberland Infirmary, Carlisle, vice J. F. Haswell, M.B., C.M. Edin., resigned.

STYLE, F. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for Hucknall Huthwaite, vice T. Shaw, resigned.

TEW, JAS. SCOTT, M.B., B.S. Durh., D.P.H. Camb., has been appointed to the Basford Union Rural Sanitary District, vice P. Boobbyer, appointed to Nottingham.

THRING, EDWARD T., F.R.C.S. Eng., has been appointed Assistant Obstetric Surgeon to the Prince Alfred Hospital, Sydney, and Surgeon to the Children's Hospital, Lewisham, Sydney.

WADE, CHARLES, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health and Public Vaccinator to the Boscastle District of the Camelford Union, vice Arthur Wade, resigned.

WALLIS, FRED. C., B.A., M.B., B.S. Cantab., M.R.C.S., has been appointed Demonstrator of Anatomy at Charing-cross Hospital.

WEARY, GEORGE E., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer of the Boscombe Hospital and Provident Dispensary, Boscombe, Bournemouth.

WETWAN, WM. ALBERT, M.R.C.S., L.S.A., has been appointed Certifying Factory Surgeon for the Bridlington District, vice C. F. Hutchinson, M.D., deceased.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CLAYTON HOSPITAL AND GENERAL DISPENSARY, Wakefield.—House Surgeon. Salary £120 per annum, with residence at the hospital, attendance, coals and gas.

DORSET COUNTY ASYLUM.—Assistant Medical Officer. Salary £120 per annum, with board and residence.

GATESHEAD DISPENSARY.—Resident House Surgeon. Salary £200 per annum, with furnished apartments in the dispensary, coals and gas.

GENERAL DISPENSARY AND INFIRMARY, Jersey.—Resident Medical Officer. Salary £120 a year, with furnished apartments and attendance.

GENERAL INFIRMARY AT LEEDS.—Resident Obstetric Officer. House Physician. House Surgeons. These appointments for twelve months.

HANTS COUNTY ASYLUM, Knowle, Fareham.—Junior Assistant Medical Officer. Salary £100 per annum, with furnished apartments, board, washing, and attendance.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Resident Medical Officer as House Surgeon, for one year. Salary £50 per annum, with board and residence in the hospital.

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer. Salary commencing at £105 per annum, with furnished apartments, board, attendance, and washing.

LIVERPOOL INFIRMARY FOR CHILDREN, Myrtle-street.—House Surgeon. Salary £85 per annum, with board and lodging.

LONDON LOCK HOSPITAL AND ASYLUM, Harrow-road and Dean-street, W.—Physician and Surgeon to Out-patients.

OWENS COLLEGE, Manchester.—Junior Demonstrator in Physiology. Salary £100 per annum.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—House Surgeon. Salary £50 per annum, with board and residence. Appointment for six months.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—House Surgeon for one year. Salary £70 per annum, with board and residence. Also Assistant House Surgeon for one year. No salary, but board and residence provided.

SHEFFIELD GENERAL INFIRMARY.—House Surgeon. Salary £120 per annum, with board, lodging, and washing, with a prospective advance of £10 per year for the second and third years. Also Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing. These Appointments to continue for three years only.

STOKESLEY UNION, Stokesley.—Medical Officer for the Union Workhouse and the Stokesley district. Salary £54, exclusive of vaccination fees, and such extra medical fees as are allowed by the Local Government Board.

UNIVERSITY COLLEGE, Dundee.—Professor of Physiology. Salary £350 per annum, with two-thirds of the fees.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Honorary Dental Surgeon.—Also Honorary Surgeon.

Births, Marriages, and Deaths.

BIRTHS.

BOSWELL.—On Sept. 21st, at Saffron Walden, the wife of Henry St. G. Boswell, M.B., of a son.

CARPENTER.—On Sept. 28th, at Wykeham House, Bedford-park, Croydon, the wife of Arthur B. Carpenter, M.B. Oxon., of a daughter.

DAWSON.—On Sept. 27th, at Heathlands, Southbourne-on-Sea, the wife of Yelverton Dawson, M.D., of a son.

MOODIE.—On Sept. 25th, at Park Avenue House, Stirling, the wife of Robert Moodie, M.D., B.Sc., of a son.

WEBSTER.—On Sept. 27th, at Wribbenhall, Bewdley, the wife of George L. Webster, M.R.C.S., of a son.

WREFORD.—On Sept. 30th, at 260, Clapham-road, the wife of Samuel Wreford, M.R.C.S., of a daughter.

MARRIAGES.

ARNOLD—MAYHEW.—On Oct. 1st, at St. Mary's, Walmer, Samuel Carnelley Arnold, M.B., C.M. Edin., of Minster, Thanet, to Emsie, second daughter of the late Thos. Mayhew, Esq., of Sevenscores, Minster.

BAREFOOT—WALKER.—On Oct. 2nd, at Christ Church, Southport, by the Ven. Archdeacon Clarke, John Richard Barefoot, surgeon, Army Medical Staff, to Lilian Elizabeth Mary, daughter of Henry Walker, Esq., of Mosborough Hall, Derbyshire, and Southport.

BATTAMS—HART.—On Sept. 28th, at the Parish Church, Hornsey, James Scott Battams, M.R.C.S., of 123, Lavender-hill, S.W., late Resident Medical Officer, East London Hospital for Children, to Kate Elizabeth, daughter of the late George Hart, of Wakefield, Yorkshire.

HALES—WARD.—On Sept. 26th, at Christ Church, Gailey, Robert Turner Hales, M.D., son of John Hales, Esq., of Holt, Norfolk, to Alice Mary, third daughter of Henry Ward, Esq., of Rodbaston, Stafford.

HODSDON—RAFFIN.—On Oct. 2nd, at Dornster House, Mayfield-gardens, Edinburgh, by the Rev. W. M. Falconer, M.A., and the Rev. George Davidson, M.A., James W. B. Hodsdon, M.D., F.R.C.S. Edin., to Joan, daughter of the late William Raffin.

MAYLARD—REDDIE.—On Oct. 2nd, at St. Silas's English Episcopal Church, Glasgow, by the Rev. Sholto D. C. Douglas, M.A., Incumbent, assisted by the Rev. T. M. Macdonald, Canon of Lincoln and Rector of Kersal, Manchester, Alfred Ernest Maylard to Jane, elder daughter of Charles Reddie, of Glasgow, and granddaughter of Sir George Burns, Bart., of Wemyss Bay.

MORRISON—TITTERTON.—On Sept. 27th, at the Central Hall, Great Charles-street, Birmingham, by John Morrison, LL.B., brother of the bridegroom, James Thos. Jackman Morrison, M.A., B.C. Cantab., F.R.C.S. Eng., of Birmingham, to Edith Mary, eldest daughter of the late John Ward Titterton, of The Manor, Shifnal, Salop, and niece of Sir Charles B. H. Soame, Bart.

THOMAS—SCOTT.—On Sept. 21st, at St. Matthew's Church, Gosport, William Thomas, M.R.C.S., L.R.C.P., &c., of Rhyl, to Elizabeth Mary, only daughter of W. Scott, Esq., of the Royal Clarence Yard, Gosport.

VACHER—BLECKLEY.—On Oct. 2nd, at St. Andrew's Church, Birkenhead, by the Rev. A. McLeod, D.D., assisted by the Rev. A. M. Symington, D.D., Francis Vacher, F.R.C.S., to Elinor Margaret, daughter of the late Rev. John Mollan Bleckley, A.B., of Wicklow.

DEATHS.

BLUNT.—On Sept. 25th, at St. Martin's, Leicester, Thomas Blunt, M.D., aged 47.

SMITH.—On Sept. 29th, at Park-street, Grosvenor-square, Protheroe Smith, M.D., in his 80th year.

VASSIE.—On Sept. 25th, at Crofton Hill, Lanark, Richard Vassie, M.D. Edin., M.R.C.S., late of Kirkcaldy.

WILLS.—On Sept. 28th, at Orleigh Mount, Torquay, William Wills, M.R.C.S., father of the late Wm. John Wills, Australian Explorer, aged 85.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 3rd, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 27	30·14	W.	59	57	82	67	45	..	Dull
,, 28	29·85	N.W.	57	52	97	63	55	..	Overcast
,, 29	29·83	N.W.	51	46	96	59	47	..	Fine
,, 30	29·70	N.W.	54	51	80	57	48	·01	Showery
Oct. 1	29·90	N.	52	50	90	58	48	·07	Overcast
,, 2	29·91	N.	51	50	91	59	50	·12	Overcast
,, 3	29·84	N.	50	49	67	56	48	·02	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

HEREDITY OF BONE DISEASE.

JULIUS DOLLINGER of Buda-Pesth has been trying to discover what influence the health of grandparents has upon the tendency to bone and joint tubercular disease in the grandchildren. He has, of course, met with great difficulty; and in the poorer classes, among whom these diseases are most common, patients are often quite unable to give any reliable information as to their grandparents. But his investigations have led him to the conclusion that bone and joint tubercle is found more often in the grandchildren than in the children of those who suffer from pulmonary tuberculosis.

Mr. T. A. Papillon.—The article appeared in THE LANCET of Sept. 29th, 1888, p. 628. Probably Dr. Weigert of Berlin could give further information.

PHYSICAL DEVELOPMENT.

To the Editors of THE LANCET.

SIRS,—Two years ago you courteously published the paper I read on the experimental production of chest types in man. Thanks to the cordial co-operation of Mr. J. E. K. Studd and the Polytechnic authorities, we a few months ago inaugurated a society to practically apply the principles laid down in that paper, and the results have been both so successful and of so much importance that I shall be glad if you will enable me to place them before the profession.

The society already numbers upwards of sixty members, and a fair sample of their measurements—thirty—now lies before me. I find the chest-girth has increased on an average one inch and a half, the range of movement over an inch, and in one-third of the cases the chest-girth has increased from two inches to three inches and three-quarters. These changes have been effected as easily in a chest of thirty-six or thirty-eight inches as in one of thirty or thirty-two inches, and that irrespective of the height. Some of the members are between twenty and thirty years of age, and have had gymnastic and athletic training. Amongst them are clerks, printers, carpenters, tailors, grocers, &c., and they are engaged in their occupations many hours daily. Consequently, the practicability of obtaining a very considerable increase of the chest-girth and the many great advantages that implies is now unquestionably established. We obtained these results by very simple means. The conditions, habits, and surroundings that tend to reduce the breathing capacity were removed or compensated for, conditions, habits, and surroundings that tend to develop the chest were introduced, and the measure of the success with which that was effected is seen in the extent of the increase each member obtained. And I need only point out the immense importance of true physical development in the education of children, in the training of soldiers, and for life assurance, in order to justify an earnest plea for the co-operation of the profession in urging its general adoption.—Yours faithfully,

G. W. HAMBLETON,
President, Polytechnic Phys. Develop. Soc.;
Dorchester-place. Memb. Occupations Committee.

A BICEPHALOUS MONSTROSITY.

TOWARDS the end of last month a woman gave birth, at Sestri Ponente on the North Italian Riviera, to a fœtus, weighing 1990 grammes, having two distinct heads, two thoracic and two abdominal, extremities quite normal and well-developed—the thoracic being 12 centimetres in length, and the abdominal the same. Both the heads are covered with longish black hair, and reveal, to the touch, large sutures and fontanelles; in both, moreover, the eyes are well-pronounced, with the pupillary membranes distinguishable. One head has a double hare-lip, the fissure towards the left side being the deeper. The same head has an occipito-frontal periphery of 26 centimetres, while that of the other measures 24. The shoulders are covered abundantly with a fine *lanugo*. The smaller head resembles a large fungus with its peduncle planted on the epigastric region of the fœtal body; it is seen, lower down, with the face on the anterior superficies of the neck, as if in the act of kissing, and as if embraced by the thoracic extremities. The abdomen is open in such a way as to render visible the liver, the spleen, the kidneys, and the intestinal mass, while its parietes are extremely thin. Parturition was very laborious, but Dr. G. Tubino, the obstetric physician who had charge of the case, was able to tide the mother over all difficulties, so that she is now in good health. The monstrosity, skilfully preserved, is now on view in the Museo Ostetrico of the Medical School of Genoa.

W. G. E.—Probably FitzWygram on the Horse, and Courtenay's Manual of Veterinary Medicine and Surgery, would be found to answer our correspondent's purpose.

M.B., B.S.—The card is in good taste.

ATTENDANCE ON MEDICAL MEN'S FAMILIES.

To the Editors of THE LANCET.

SIRS,—"An Old Subscriber" has ventilated a grievance of long standing from his point of view, in which he has my hearty sympathy. Allow me to put forward another aspect of the case, from the consultant's point of view.

I am certain that every consultant has pleasure in giving advice gratuitously to his brethren and their families so long as the latter are dependent upon their fathers. The obligation ought, however, to cease when sons are started in life and when daughters are comfortably married. There should, I think, be a delicacy, too, in demanding the aid of a perfect stranger, and perhaps saddling him with an operation and long attendance, when other consultants to whom the sufferer is well known would be able to afford equally capable assistance. But it is of the unreasonable use of telegrams when letters would fulfil every purpose that I complain. A telegram is supposed to mean *urgency*, and it is somewhat trying when one has thrown up other engagements to obey a telegraphic summons to find the doctor out, and to learn that one is not expected. Your correspondent complains rightly of discourteous want of letter-writing. I cannot tell how often I ask a medical man to let me know the after-progress of a case I have seen with him, but I know that the answers are few and far between. Even invitations to dinner are left unanswered for many days, notwithstanding that "an early answer is requested."

I am, Sirs, yours obediently,
September, 1889. A CONSULTANT.

THE JONES FUND.

MR. WILLIAM JONES, L.R.C.P., returns many thanks to those gentlemen who subscribed towards his indemnity fund, and also to Dr. Hunt for the trouble he has taken and the sympathy he expressed.

Alpha.—The Births and Deaths Registration Act of 1874 enacts in Section 48 that the chief resident officer of every public institution shall be deemed to be the occupier of such dwelling, and as such he is bound to act as informant of such death, if no better qualified informant can be obtained. Registrars of births and deaths, however, are specially instructed that in the case of a death in a public institution they should, whenever practicable, obtain the necessary information from a relative of the deceased.

Mr. J. Thomas is not entitled to a fee.

ANTIPYRIN AND SODIUM SALICYLATE.

To the Editors of THE LANCET.

SIRS,—In reply to Dr. Monteith's letter regarding the pasty compound which results when antipyrin and sodium salicylate are mixed together, I may state that two French pharmacists, Prudhomme and Vigur, have investigated the matter, and their results show (see *The Chemist and Druggist*, vol. xxxiv., p. 330) that a solution of antipyrin and the salicylate does not undergo change, and may be preserved indefinitely. Whether the paste or syrup formed when the substances are mixed in the dry state is a new compound or not has not been proved, but I believe that the change is similar to what takes place when chloral and camphor are mixed. The powders do not liquefy, on account of absorption of moisture from the air. I may say that pharmacists are familiar with the change, and when they have an opportunity bring the fact under the notice of prescribers.

I am, Sirs, yours faithfully,
Cannon-street, E.C., Sept. 27th, 1889. PETER MACEWAN.

MICRO-ORGANISMS IN CHEESE.

PROF. ADAMETZ, of the School of Cheese-manufacture at Sornthal in Switzerland, in the course of his investigations into "caseous pathology," has succeeded in isolating no fewer than nineteen species of microbes in one kind of cheese, and that in the fresh state. For every gramme of this he found bacteria numbering from 90,000 to 140,000, and these multiplied to more than 800,000 in a seventy-days' cheese. In the soft cheese the microbes were still more numerous. Prof. Adametz found 1,200,000 in one gramme of a thirty-four days' cheese, and 2,000,000 in a forty-five days' specimen. These were found in the interior parts of the cheese. On the rim he calculated there were from three to five millions for every gramme. By a series of ingenious experiments the same pathologist demonstrated that the arrest by antiseptic substances of these micro-organisms prevents the cheese from maturing.

Dr. T. P. Atkinson.—We think it reasonable that the officer in question should receive the fee, as provided in the Act.

VENTRO-FIXATION OF THE UTERUS.—MEDICAL FEES IN LIFE ASSURANCE.

To the Editors of THE LANCET.

SIRS,—In one of your annotations in to-day's issue is a quotation from a lecture by Dr. Thiriat of Brussels on the above subject, in which he speaks of the operation as a new one. I think it right, therefore, to say, if only for the credit of my country, that I performed this operation successfully (and purposely not taking it in connexion with ovariotomy) as long ago as 1880, at the Hospital for Women. I used a silk suture in picking up the fundus uteri, and silkworm gut to close the abdominal wound.

In another annotation in the same number reference is made to a letter at page 677 on the subject of medical fees in life assurance. Did "G. F. H." write to the insurance company in question? I think it but fair to state that the Prudential Assurance Co. sent me half a guinea the other day as a fee for reporting on the life of one of my patients, but on my representing that the usual fee was one guinea they at once sent it to me.

I am, Sirs, yours faithfully,
Harley-street, Sept. 28th, 1889. HEYWOOD SMITH.

"A CAUTION."

To the Editors of THE LANCET.

SIRS,—In your valued journal of Aug. 10th, 1889, just to hand by mail of Sept. 7th, I see the letter signed by my father. I deeply regret that anyone should use my name to obtain money, and that surgeons attached to St. Thomas's Hospital (my old school) should have been annoyed by these applications for aid. I am proud to remark they know me, in the instances brought to my knowledge, too well to have been defrauded. I sincerely trust no fellow-student nor any of my hospital friends have been imposed upon. Anyone having letters from the impostor would greatly oblige by sending them to the solicitor named in my father's letter (Basil Greenfield, Esq., 31, Nicholas-lane, E.C.). I am the only James Henry Clark on the Medical Register in this country. For the last twenty years no other James Henry Clark has been in practice here, nor in the Medical Service. I was in England for a few months only in 1883. Am in active practice here.

I am, Sirs, yours faithfully,
JAMES HENRY CLARK,
Jamaica, West Indies, Sept. 9th, 1889. Government Medical Service.

FOREIGN BODIES IN THE EYE.

To the Editors of THE LANCET.

SIRS,—Will you kindly correct two errors which were overlooked in the proof of my lecture published last week? I am made to say that a piece of iron or steel "one or two grains in weight," when lying close under the sclerotic, will deflect the magnetic needle. It should be six or seven grains. Also, in the third line of the lecture, the word "forming" should have been *foreign*.

I am, Sirs, yours faithfully,
Newcastle-on-Tyne, Oct. 2nd, 1889. C. S. JEAFFRESON.

RESECTION OF CERVICAL VERTEBRÆ FOR PARAPLEGIA.

To the Editors of THE LANCET.

SIRS,—With reference to the case of resection of the cervical vertebræ &c. for paraplegia, recorded in THE LANCET of Aug. 17th, 1889, page 315, I have pleasure in stating that so completely has the boy recovered that he not only runs about like other boys, but on Sunday last was seen engaged in a stand-up fight with another street arab.

I am, Sirs, yours very truly,
HENRY THOMPSON,
Hull, Sept. 28th, 1889. Surgeon to the Hull Royal Infirmary.

MEDICAL FEES AT CORONERS' COURTS.

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me what is most usually done with fees for evidence given in coroners' or other courts when these fees are earned by the assistant? Does the assistant take them? or are they divided between principal and assistant? or does the principal appropriate them entirely?

I am, Sirs, yours faithfully,
Sept. 17th, 1889. X. Y. Z.

THE MEDICAL SCIENCE OF THE ANCIENT EGYPTIANS.

IT would appear from an article by Prof. Hirschberg of Berlin, in the last number of the *Deutsche Medizinische Wochen. Chronik* that a great service has been rendered to the science of medicine by the German writer of fiction, George Ebers. Prof. Hirschberg points out that medicine is indebted to that celebrated writer and Egyptologist for the first real insight into the therapeutics of the ancient Egyptians. He has in that respect not only discovered the most important work (Papyrus Ebers), and published a facsimile of it, but has also just rewritten, translated, and provided with comments and illustration one of the most important sections of that Papyrus. The difficulties, Prof. Hirschberg says, were immense; for even if one had read the letter of the name of an illness or remedy, the question arose how to discover the literal meaning and the medical sense of that letter. But as great as was the difficulty is the advantage derived for the history of medical science. According to George Ebers, his MS. is the hermetic book of the medicaments mentioned by Clement of Alexandria. The MS. was certainly written during the eighteenth dynasty about 1500 years before Christ, at the latest. It is a compilation in which very old and some foreign prescriptions were likewise embodied. Thanks to the excellent translation of, and comments upon, the section of the Papyrus Ebers treating of eye diseases, the medical man is now able comfortably to read this oldest book on medical science, which was written a thousand years before Hippocrates.

H. S. has forgotten to enclose his card.

ABNORMAL EFFECTS OF ANTIPYRETICS.

To the Editors of THE LANCET.

SIRS,—In connexion with Professor Heuchen's observations on the abnormal effects of antipyretics in some instances, commented on in an annotation in your issue of Sept. 14th (page 553), I beg to call attention to the following case. E. P——, between sixty-five and seventy years of age, presents the following peculiar idiosyncrasy to quinine: Whenever she takes a grain of the drug it produces elevation of temperature (104° to 105° an hour after the dose), acceleration of pulse and breathing, rigors, slight delirium, nervous disturbance, thirst, dry parched tongue, and hot dry skin, with general malaise and every appearance of ill-defined fever. These symptoms pass off in from twelve to twenty-four hours, leaving the patient quite well. Similar symptoms have occurred three or four times in the same patient at intervals of some months, and in each instance within an hour or so after the dose of quinine.

I am, Sirs, yours faithfully,
Manchester, Sept. 18th, 1889. LEONARD G. PETERS, L.R.C.P., &c.

A WARNING.

To the Editors of THE LANCET.

SIRS,—Waiting-room tables rarely exhibit works of value; or should not, at any rate. A few antique *Punches*, semi-religious circulars, or quasi-puffs, if the practitioner specialises. But inasmuch as the waiting-room is in nine cases out of ten the centre of the medico's abode, let him be careful what he leaves out on his table overnight after a "read." Within a year I have lost a copy of the Æneid (1672), a valuable work in Japanese, and one on Eastern armour, which I should much like to see again, as my name and address will be found in each. I regret to say I remember that I did not put them back in my library after use.

I am, Sirs, yours faithfully,
Wimpole-street. F.R.C.S.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Henry Acland, Oxford; Dr. Sutherland, London; Dr. Dearden; Dr. Braxton Hicks, London; Mr. Jeaffreson, Newcastle-on-Tyne; Dr. Monteith, Burnley; Mr. Page, London; Mr. W. Jones, Edmonton; Dr. Seaton, London; Mr. J. H. Balfe, Dundee; Mr. Pink, London; Mr. Syers, London; Mr. J. J. Clark; Mr. Symonds, Oxford; Messrs. Allen and Hanbury, London; Dr. Pollard, Somerset; Mr. Hornibrook, London; Mr. Biddle, Kingston; Mr. W. Anderson, London; Mr. J. Bell, Hong Kong; Mr. Finucane, Fareham; Dr. A. Duke, Dublin; Mr. Harrison Cripps, London; Mr. Symonds, London; Messrs. Risien, Rustell, and J. Taylor, London; Dr. J. C. Simpson, Fettercairn; Messrs. Meyer and Meltzer; Mr. R. D. Pedley, London; Messrs. W. H. Smith and Son, Birmingham; Mr. J. H. Clark, Jamaica; Messrs. Burgoyne and Co., London; Dr. G. S. Middleton; Mr. E. R. H. Cory, Buckhurst Hill; Mr. Mac Ewan, London; Dr. E. F. Neve, Kashmir; Dr. Norman Kerr, London; Dr. Macgregor, Wellington, N.Z.; Messrs. Woolley and Co., Manchester; Mr. Bevill, Sydney, N.S.W.; Messrs. Smith and Son, Liverpool; Dr. F. P. Atkinson, Surbiton; Messrs. Leader and Sons, Sheffield; Mr. A. M. Barford, Liverpool; Mr. Clement Dukes, Rugby; Dr. Spender, Bath; Dr. Savill, London; Dr. Heywood Smith, London; Dr. G. W. Hambleton, London; Messrs. Oliver and Boyd, Edinburgh; Dr. Kirk, Partick; Dr. W. H. Ormsby, Dublin; Messrs. Newbery, London; Mr. Sleman, London; Dr. A. V. Bernays, Solihull; Dr. Middleton, Glasgow; Dr. S. Haynes, Malvern; Dr. A. Money, London; Dr. D. H. Cullimore, London; Mr. S. Snell, Sheffield; Mr. Perry, London; Mr. Maish, Bristol; Mr. G. H. Salter,

Edinburgh; Dr. J. D. Mackay, Hornby; Dr. W. T. Gairdner; Mr. R. Emmett, Portsmouth; Dr. Allwright, Brighton; Dr. E. M. Sympson, Lincoln; Dr. Maguire, London; Dr. Roche, Kingstown; Mr. Milton, Cairo; Mr. G. Thorpe, Walthamstow; Dr. Squire, London; Dr. Emil Dorn, London; Dr. Gowers, London; Dr. Sutton, Bucks; Mr. Bevill, Sydney; Mr. Saunders, Manchester; Dr. Hassall, Italy; Mr. Hilton, London; Mr. Morrison, Birmingham; Dr. Ellis, Newcastle-on-Tyne; Dr. Cunningham, Eastbourne; Dr. Lindley, Stanberry; Mr. Thomas, Liverpool; Mr. Sell, London; Mr. J. B. Browne, London; Mr. Ross, Sheffield; Dr. Macdonald, Dorset; Mr. Sacker, London; Mr. Tigg, Southampton; Mr. Freeman, Soho-square; Messrs. Robertson and Scott, Edinburgh; Mr. Cornish, Bloomsbury; Messrs. Hopkinson and Co., Notts; Mr. Godfrey, Northampton; Messrs. Maw, Son, and Co., London; Mr. McManus, Athlone; Mr. Binks; Messrs. Calvert and Co., Manchester; Mr. Hastings, Sidmouth; Mrs. Semple, Bury St. Edmunds; Mr. Byerley, Portsea; Mr. Blair, Leeds; Mr. Twyford, Hanley; Dr. Laerman, Biggleswade; Mr. Berthier, Paris; Miss Prigg, London; Mr. Birchall, Liverpool; Mr. Lamond, Glasgow; Mr. Russell, Liverpool; Mr. Morris, London; Dr. Whipham; Dr. Ewart, London; Messrs. T. Watt and Son, London; A Consultant; F.R.C.S.; Alpha Beta; Assistant; Alpha; Lema, London; Penelope, London; Lady Superintendent, Hull Sanatorium; K., London; X. Y. Z., Tunbridge Wells; A. B., London; X. Y. Z., London; Secretary, Hants County Asylum; C. J. R.; M. D. B., London; Medicus, London; Maltine Co., London; I., Eastbourne; M.B., B.S.; E. C. H.; J. W. M.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Walter, Manchester; Mr. O'Donnell; Mr. Gray, Bristol; Messrs. Griffin and Co., London; Mr. Harries; Mr. Evans, Llangollen; Messrs. Spurgeon and Son, Maldon; Messrs. Somerville, Edinburgh; Mr. Daniell, Port Talbot; Mr. Dunlop, Southampton; Mr. Monro, Penge; Mr. Thomas, Liverpool; Mr. Thomas, Banbury; Miss Ruck, Dawlish; Mr. Tully, Hastings; Mr. Maclean, Walthamstow; Mr. Thompson, Bourton; Mrs. Levick, Paris; Mr. Bobrownicki, Manchester; Mr. Frost, Cornwall; Mr. Smith, Durham; Mr. Morton, Wingham; Miss Rawlinson, Bath; Miss Hunt, Dublin; Mr. Chrispin, Yorks.; Mr. Luck, Eastbourne; Mr. Stenhouse, Glasgow; Mr. Forbes, Yorks.; Mr. Kelvin, Manchester; Mr. Martyn, Saltash; Dr. Dixon, Arundel; Dr. Main, Newbury; Dr. Maberly, Ventnor; Dr. Maxim, Kent; Mrs. Turner, Finsbury-park; Mr. Wadlow, Manchester; Mrs. Reynolds, South Kensington; Mr. Andrew, Weston-super-Mare; Messrs. Entwistle and Co., Accrington; Dr. Bowes, Oldham; Messrs. Tozer, Hewitt, and Co., London; Mr. Bredin, London; Miss Moorhouse; Messrs. Grouse and Co., Suffolk; Mr. Heywood, Manchester; Mr. Bartlett, South Devon; Mr. Capel, London; Dr. Savage, Lisburn; Messrs. Whittle and Co., Liverpool; Mr. Williamson, Andover; Dr. Popham, East Dulwich; Mr. Pennington, Jersey; Mr. W. Cartin; Messrs. Hooper and Co., London; Mr. Leach, Bristol; Mr. Battams; Dr. Jeans, Isle of Wight; Mr. Wreford, Clapham; Mr. Adam, Paisley; Miss Waugh, Hampstead; Mr. Maylard, Glasgow; Mr. Williams, Aberystwyth; Mr. Denton, London; Mr. Archer, Liverpool; Mr. Vacher, Birkenhead; Mr. Beatley, Aylesbury; Mr. Skinner, Somerset; Dr. Hodsden, Edinburgh; Dr. Hubbusty, Stamford; Mr. Sowerby, Stokesley; Miss Budge, Crediton; Miss Branley, Lincoln; Partnership, Highbury; Nucleus, London; Anthrasosis, London; Secretary, Royal Hospital for Women, Waterloo-road; Final, London; Asterisk, London; Country Town, London; Cornwall, London; Fides, London; Matron, Hereford General Infirmary; R. W. A., London; Statim, London; Assistant, Northwich; Brython, London; Dr. M., London; Z. Y. X., London; Surgeon, London; Yorks., London; Patrick, Bristol; S. Q.; Beta, Surrey; Pressure, London; Davos, Salop; Sigma, London; H. C. M., London; Medicus, London; Medicus, Southwark-street; Chancellor, London; C. S. H., London; L., London; Miss L., London; Viator, London; I. I. H., Durham; A. D., London; A. A., London; Fides, Bath; Physician, London; Alpha, Birmingham; Secretary, Old Kent-road; A. B., London; Querens, London; M. A. A., London; Pleximeter, London; L.R.C.P., London; S.P.Q.R., London; C. R., London; E. B., London; S. L. M., London; Surgeon, Bath; Gentian, Fleet-street; Assistant, Old Kent-road.

St. Helen's Chronicle (Lancashire), Surrey Advertiser, Northern Echo (Darlington), Hertfordshire Mercury, Barrow News, Weekly Free Press and Aberdeen Herald, Western Chronicle, Mining Journal, School, Reading Mercury, Dundee Advertiser, Lincolnshire Herald, Southport Visitor, Durham Chronicle, &c., have been received.

Medical Diary for the ensuing Week.

Monday, October 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, October 8.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, October 9.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
HUNTERIAN SOCIETY.—8 P.M. The President: A Short Address.—Dr. Turner: Two cases treated by Forced Feeding.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Ordinary Meeting.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Mr. Lawson Tait, Dr. Bantock, Dr. Edis, Dr. R. T. Smith, and others. Adjourned discussion upon Dr. Dolan's paper on Gynæcological Specialism and General Practice. Council Meeting at 8 P.M.

Thursday, October 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, October 11.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, October 12.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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